DOCUMENT RESUME

ED 228 209 SP 022 064

TITLE	Peace Corps Stateside Teacher Training For Volunteers in Liberia. Volume III: Training Program for Vocational Education Teachers (Group B). Final Report.
INSTITUTION	PSI Associates, Inc., Washington, DC.
SPONS AGENCY	Peace Corps, Washington, D.C.
PUB DATE	12 Feb 82
CONTRACT	82-042-1003
NOTE	204p.; For related documents, see SP 022 062-066.
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	*Agricultural Education; Cross Cultural Training; *Curriculum Development; Curriculum Guides; Elementary Secondary Education; Foreign Countries; *Home Economics Teachers; Inservice Teacher Education; Overseas Employment; Vocational Education; *Vocational Education Teachers; Voluntary Agencies; Volunteers; *Volunteer Training
IDENTIFIERS	*Liberia; *Peace Corps Stateside Teacher Training Model

ABSTRACT

The stateside training program for Peace Corps vocational education teachers on their way to Liberia has the objectives of developing an awareness of and competencies in the areas of: (1) writing performance-based objectives; (2) completing a scope and sequence document; (3) developing a course outline; (4) writing a teacher lesson plan; (5) writing a student lesson plan; (6) utilizing competency-based curriculum; (7) developing an outline for a peer workshop; (8) discussing community-based projects; (9) giving at least two teaching assignments before peer groups; and (10) one full week of student teaching. This manual gives an overview of the training program for vocational agriculture teachers and vocational home economics teachers. Included in the overview are the subjects to be covered and outcomes anticipated in the way of projects produced. Multiple resources are provided in the manual, including volunteer-made materials, learning packets, and student worksheets. (JM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED228209

FINAL REPORT

PEACE CORPS STATESIDE TEACHER TRAINING FOR VOLUNTEERS IN LIBERIA

VOLUME III: TRAINING PROGRAM FOR VOCATIONAL EDUCATION TEACHERS (GROUP B)

BEST COPY AVAILABLE

PSI Associates, Inc.
1900 L Street, N.W.
Suite 301
Washington, DC 20036

CONTRACT NO. 82-042-1003

February 12, 1982

SP 022 064

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

TABLE OF CONTENTS

GROUP B: VOCATIONAL EDUCATORS

PAGE

Introduction 1

Evaluation 2

Annex A: Group B - Training Syllabus

Annex B: Volunteer-Made Materials

FINAL REPORT

GROUP B: VOCATIONAL EDUCATORS

by Dr. Sarto Marzullo

Introduction

The training was very well-organized, planned and implemented. Lack of "lead time" created some minor problems since there was not sufficient time to allow for thorough discussion and total clarification of all goals and objectives.

Dr. Barbara L. Smith, Dean of the College of Education and Human Ecology, University of the District of Columbia, did a great job of articulating with Dr. Elizabeth Abramowitz and her PSI staff. A staff was in place to meet the Peace Corps volunteers when they arrived at the 4-H Center. Much had been accomplished over a short period of time.

In retrospect, the organization functioned to meet immediate needs. There was no delay in getting the students (volunteers) involved, and the mechanism was in place to bring about desired goals and objectives.

The first week was one of much confusion and uncertainty for the volunteers. This information was brought to my attention during the course of "brainstorming" in small group sessions, and through individual interviews which were to follow. The main sources of anxiety dealt with the nature of one's assignments, anxiety on the part of individuals who were curious about the nature of their training, and questions concerning luggage and destination of the teaching assignment. None of these questions were resolved until at least midway of the program, and lack of information increased the anxiety levels of some volunteers.

On positive attribute was that the volunteers did have confidence that the PSI staff was diligently attempting to get the answers as expeditiously as possible. Calls for meetings and requests for information were responded to promptly. The ability to meet quite frequently was a good catharsis.

Evaluation

Very early, a determination had to be made as to what priorities would be made with respect to the UDC training. I made this determination very easily with respect to my group, Group B. At the first session, I clearly stated the need to develop an awareness of an competencies in the following areas:

- Writing performance based objectives
- Completing a scope and sequence document
- Developing a course outline
- Writing a teacher lesson plan
- Writing a student lesson plan
- Utilizing competency-based curriculum
- Developing an outline for peer workshop
- Discussing community-based projects

- Giving at least two teaching assignments before peer groups with lessons meeting District of Columbia Schools CBC requirements

- One full week of student teaching at assigned District of Columbia Public Schools

All of the above requirements were met satisfactorily with the exception of the last objective. Lack of the opportunity to teach for a specified period of time in a public school situation was tempered somewhat by the teaching which took place before the peer group. After the first week, a very close working relationship had developed within the group. Criticisms were positive and non-threatening. The group was exceptionally helpful and supportive of its own. An excellent group dynamic had evolved.

We had paired off to assure daily opportunities for individualized attention and feedback. Volunteers felt free to voice their anxieties or comments concerning the program. Some form of individual evaluation took place on a daily basis. Students needing additional help in certain areas were assigned a group member to work with them.

The most serious obstacles we confronted were those dealing with the inclement weather. Bus schedules precluded the students getting to the schools early enough to assure them of sufficient observation and teaching time.

Indeed, a few students never did get to teach in the school system at all. Remodeling and broken water pipes denied the volunteers any significant participation in the construction area. Students, on the other hand, from agriculture and electronics had very rewarding experiences at the same school. Those art volunteers also experienced a tremendous learning environment at the Lemuel A. Penn Center.

Peace Corps volunteers had indicated several times that they would have been free of much of their anxiety if Peace Corps personnel had provided them with more information at an earlier date. They did come to realize that the Peace Corps itself had received their own instructions concerning the project at a late date and with little prior notice.

The cross-cultural training seemed amusing to them at first, but volunteer comments later in the training period reflected the positive impact of such training. Indeed, skits at the Saturday evening party prior to departure revealed the depth of such training. These skits revealed knowledge of Liberian culture and customs reflected in a series of "do's" and "don't's" in the skits. Several volunteers approached me and taught me the proper Liberian handshake.

The special session I set up regarding the community workshops and adult literacy project was handled by a volunteer, Ron Blassingame. We combined interested members from all groups to listen to Mr. Blassingame, who comes from a background in adult education. Mr. Blassingame did an exceptional job in talking about these project, and answered group questions over a long period of time.

Student comments generally touched upon the need for:

- Earlier information dissemination
- Earlier meetings with Peace Corps staff
- Better organized school assignments
- Increased teaching experience before the peer group for all students

I might add that I, time permitting, would have added a video-tape teaching sequence to what we had accomplished.

In summary, I think we met the bulk of our objectives. Both PSI and UDC staff showed flexibility and adaptability in meeting programmatic and student needs. Increased lead time could have anticipated and developed contingency plans.

In conclusion, I honestly feel we did an outstanding job in view of the constraints we faced. Expectations for solid performance on the part of most of our student volunteers are very high. I'd very much like us to follow-up and receive more such projects.

ANNEX A

GROUP B: TRAINING SYLLABUS

PSI ASSOCIATES, INC.
WASHINGTON, D. C.

TRAINING SYLLABUS

U.S. STATE-SIDE TRAINING FOR PEACE CORPS VOLUNTEERS FOR: LIBERIAN EDUCATIONAL INSTITUTIONS

JANUARY 4 - 31, 1982

_____ GROUP A: UNIVERSITY TRAINEES (GREEN)
__x__ GROUP B: VOCATIONAL INSTRUCTORS (BLUE)
_____ GROUP C: SECONDARY SCHOOL TEACHERS (YELLOW)

PSI

PSI ASSOCIATES, INC.
SUITE 301
1900 L STREET, N. W.
WASHINGTON, D. C. 20036

(202) 659-6436

DIRECTORS:
Dr. Elizabeth A. Abramowitz
President
Dr. Evelyn P. Boyer
Vice President
Dr. Charles Sanders
PSI Management Development Institute
Dr. Bernard Coleman
PSI International Division

ADVISORY BOARD:
Dr. James Bayton
Professor Emeritus
Howard University
Dr. Kenneth B. Clark
Clark, Phipps, Clark and Harris
Dr. Mamie P. Clark
Northside Center for
Child Development
Mrs. Roscoe Dellums
Rostick Productions
Dr. Heidi Dulay
Bloomsbury West
Dr. Roselyn Epps
District of Columbia
Department of Human Resources
Dr. Robert Green
Michigan State University
Dr. Anne Poussaint
Boston Clinic
Dr. Frances Rankin
Howard University Medical School
Dr. Barbara Smith
University of the District of Columbia
Dr. Ross Trapp-Dukes
Howard University
Center for the Study of
Handicapped Children
Mr. M. Jellan West
Children's Hospital National
Medical Center

P.O. Box 1445
US/AID
Monrovia, Liberia

December 24, 1981

Dear Peace Corps Volunteer:

Welcome to a situation where your personal input may make a tremendous impact. You are doubtlessly committed to the assignment. We wish you the success you deserve as you enter the field of human services in Liberia. We wish you success in sharing your knowledge, experiences and outlook on life with the teachers and students in Liberia.

Liberia, as you have been told and will have re-emphasized, is a developing country. There are many areas in this development where progress is needed, and where inhabitants are eager to come up to modern ways of doing things and of making a living.

A large part of your success will be based on how quickly you make the adjustments, which you assuredly must make to be effective in Liberia. Here are some areas of adjustments to remember:

- One adjustment you will face is when you first leave the plane. The heat is intensive. This coupled with the humidity can be frustrating and quite debilitating, if one is too eager to "get moving." When you arrive, it will be the "Dry Season." During this season, very little rain falls and the sun is extremely hot. Rushing around in the direct rays of the sun can be injurious. If you are careful, these injuries will be minimized. You will probably wonder at the way the indigenous people dress. They are more adjusted to the sun and, therefore, appear less concerned with the effects. However, your careful movements now will help you avoid problems later.

- Another area of adjustment for early consideration by you is the use of drinking water. Many times the effect of dehydration leads to a desire for a drink. It is recommended that you avoid water which has not been treated, i.e., boiled and/or filtered. You may eventually be adjusted based on the location of your work. During your health lectures, you may be instructed on chemicals to put in the water. This will help to reduce the possibilities of an upset stomach from the use of water delivered from the pipes. Be warned; care is extremely important.

- The next area for your consideration is your personal protection from mosquitoes. There is a prevalance of malaria in most areas of Liberia. Using repellants and taking your malaria suppressants will reduce the incidents of contracting this fever.

There are other areas which should claim your attention in the early part of your tour:

- You may be assigned to remote areas of the country. Living conditions are somewhat different in the interior than in the capital city, Monrovia. There are problems in Monrovia, but they are magnified in the interior. Access roads are non-existent in some areas; electricity has not reached some areas (and that which has reached is not necessarily dependable.)

- Foods you may desire regularly may be not easily available. Your adjustment to these conditions may take some effect on your part. (Rice is the staple in the Liberian diet.)

- Liberian people are friendly and outgoing. They are eager to have your assurance that there are ways of improving their situations. You will probably be welcomed by individuals who will desire to be "adopted" by you immediately. Be careful because this may be the beginning of a series of "gifts/loans" which you may not be able to easily stop. We recommend that you return "friendly" attitudes, even as you say "no," less you lose a worthy resource.

- There undoubtedly are many times where your personal attributes will serve you well. Use them to your advantage.

- One final suggestion - begin carefully in your zeal to amass the indigenous art pieces. They are interesting, well accomplished but expensive. Bide your time and you will soon learn the art of bargaining.

You will be told during your orientation about the peculiar characteristics of Liberia you will experience. One of these pertains to the political/economic situation in the country. Do not attempt to argue your political (or religious) ideas, or judge the situation in Liberia. You have a job of technical assistance, and need not hamper your cooperative efforts by delving into the political arena. The military rule is designed to change the conditions of Liberia and her people. Let them accomplish this assigned tasks. Liberia relies heavily on international donors, especially the United States. There is, however, some anti-American sentiment, among the nation's leaders. Do not take such comments personally. Do not enter into political debates on the subject. Your effectiveness is the best argument that can be made in defense of the United States.

You represent many disciplines with many years of training and experiences. These will be brought into focus as you take up your teaching stations throughout the country. You will have difficulty and personal frustration, if you attempt to change everything you see immediately. The Liberian people have survived for long time, doing things "their way." Some of your ideas may not necessarily fit unless you adjust your thinking. You, as educators, must be able to utilize some of the ideas and methods you will meet in Liberia. You must be willing to integrate the Liberian way into your own plan of operation.

Finally, let your service be one of growth for the Liberian people in your assigned area, and you too will grow daily.

The best of luck in your work, and feel free to contact PSI Associates in Monrovia, if we may assist you.

Sincerely yours,

Joseph E. Butcher
Technical Adviser,
PSI Associates, Inc.
Youth-On-The-Job Training Program (U.S. AID)
National Youth and Sports Commission
Monrovia, Liberia

PSI ASSOCIATES/UNIVERSITY OF D.C. TRAINING OBJECTIVES

1. Each volunteer will design a complete learning package with 90% accuracy to be used in their classroom in Liberia. (3 weeks).
2. Each volunteer will design two secondary projects -- one in adult literacy -- with 90% accuracy with steps for implementation appropriate to Liberia. (4 weeks).
3. Each volunteer will design and pilot test an in-serivce training package independently for their Liberian counterparts. (3 weeks).
4. Each volunteer will list with 75% accuracy the important cultural traits which will influence how they must operate in Liberia, including the role of women in development. (4 weeks).

PEACE CORPS TRAINING OBJECTIVES

1. Each volunteer will master curriculum development competencies in the subject area relevant to Liberia rural communities.
2. Each volunteer will master secondary project design, competencies and implementation appropriate for Liberia.
3. Each volunteer will master in-service teacher training design and implementation competencies appropriate for peer training in Liberia.
4. Each volunteer will demonstrate sensitivity to the cultural context of Liberia in fulfilling teaching requirements.

REQUIRED TRAINEE PROJECTS

- Classroom Learning Package - Each volunteer will design and develop a classroom learning package in their own subject area. The package will include instructional objectives, teaching strategies, evaluation method, and behavioral indicators of mastery.

- Secondary Projects (2) - Each volunteer will independently design two secondary projects, one in the area of adult literacy. The design will include the goal, the need being addressed, time period covered, materials needed, community resources needed, implementation schedule, evaluation method, and follow-up and monitoring of operations.

- In-Service Training Package - Each volunteer will design and pilot test on another volunteer an in-service training package for their Liberian counterparts. The package will contain the need being addressed, the in-service training goal, the target audience, the training materials and activities, evaluation methods, and follow-up after training.

COMPETENCIES FOR JOB PERFORMANCE: GROUP B

GROUP	SUBJECT MATTER UPGRADING (COMPETENCIES)	TRAINING ACTIVITIES
Vocational Teachers	1. Write curricula in vocational fields for semi-literate students using indigenous materials.	1. Develop sight vocabulary, instructional package for students in vocational field.
(Vocational Agricultural Trainees)	2. Design in-service training activities for peer teachers in Liberia, passed on needs assessment.	2. Prepare and pilot test an in-service training workshop on other volunteers. Develop needs assessment tools, such as observation.
"	3. Write field-based curricula in agricultural education, include general animal husbandry, tree crop cultivation, upland production, and irrigated rice, and women in agriculture.	3. Observe and practice in agricultural education school program. Develop curricula relevant to Liberian farming technology.
"	4. Identify realistic secondary agricultural projects and implement them.	4. Design secondary projects appropriate for Liberia.
(All Teachers)	5. Perform routine classroom teaching, evaluation, and planning duties.	5. Practice writing lesson plans, keeping student records, evaluating students, and managing a classroom.

GROUP B: Vocational Teachers (Cont'd)	SUBJECT MATTER UPGRADING (COMPETENCIES)	TRAINING ACTIVITIES
(All Teachers)	6. Plan, write, and implement non-formal education projects in the community -- secondary projects.	6. A list of possible secondary projects in relevant areas (example - agricultural projects in organizing 4-H Clubs, Young Farmers Clubs, cooperatives). Design 2 secondary projects, one in adult literacy in the subject area.
"	7. Identify and utilize vocational training resources in Liberia, include woodworking, carpentry, electricity, auto mechanics, drafting, etc.	7. Read, discuss, and participate in mini-lectures about vocational training in Liberia. Develop list of training and material resources.
"	8. Conduct student evaluations using behavioral indicators.	8. Develop evaluation observation and demonstration techniques. Practice in micro-teaching sessions. Discuss results of the evaluation and the validity of the results.
(Home Economics)	9. Write home economics lessons with appropriate technology, i.e., hand sewing, gasoline cooking, crocheting, weaving, and with cultural awareness of local foods and seasoning.	9. Develop instructional package using relevant indigenous materials and tastes.

OVERVIEW OF WEEK 1

Week 1:

(a) Orientation to Washington, D.C. and the training program, and health screening by National Medical Association Foundation Plan, Inc./ Shaw Community Health Center.

(b) Evaluation of teaching competencies (adapted from list of teach competencies developed by Ohio State University. National Center for Vocational Education).

(c) Teacher training introduction and review.

(d) Cross-cultural training (including child health and nutrition needs).

(e) Secondary projects - introduction.

Outcomes for Week 1:

Each volunteer will have strengthened their pedagogical skills.

Each volunteer will begin to define their 3-mandated projects.

HOW THE SCHOOL SYSTEM WORKS IN LIBERIA

Prepared By: Mr. Joseph E. Butcher
PSI Associates, Inc./
Monrovia, Liberia

Most schools in Liberia are under the jurisdiction of the Ministry of Education. Teachers are hired, and then assigned to the various districts by the Ministry. Some nepotism enters into these assignments.

Supervision is left to the local school level. Superintendents vary widely in competence as administrators and as educational leaders in the district. Their appointments are also done by the Ministry of Education.

Supplies and materials are scarce, especially in the interior. Books are purchased by the students on the open market. Books are very expensive and often seriously out of date. American textbooks are used extensively. There is a tremendous need to supplement the texts with teacher-made learning activities packages.

There are some consolidated school districts. The largest is the Monrovia Consolidated School System which operates the public schools in Monrovia. In addition to the academic schools, there are vocational schools. These secondary schools prepare students for skilled trades jobs in industry. Most large employers supplement the school vocational training with their own on-the-job training programs. Many excellent vocational teachers work in these private vocational training programs.

Private schools are generally better run and more highly regarded as educational institutions, than are public schools in Liberia. Private schools charge tuition, which in some cases is very high. Private school students as a group perform better than public school students on the National Exams. These scores are important for college training.

The Ministry of Education has as a stated goal -- to improve the public school curricula. This reform has been extremely slow because of lack of qualified teachers, and lack of money to institute large scale reforms.

The guidance and counseling programs are extremely weak. Students rely on family tradition, family contacts, and peers in deciding what educational path to follow.

Instruction relies heavily on rote methods of training. Some audio-visual equipment is available. But, there are few teachers trained in producing the types of audio-visual products the students need. Unfortunately, there are instances where the audio-visual equipment is simply stored in the school, and allowed to deteriorate in the humidity.

In general, if one were to assess the instructional program in Liberian public schools, it might be as follows:

• Math Training	.... Low
• Reading Training	.... Low
• General Comprehension	.... Low
• English Language	.... Fair
• Vocational Training	.... Fair

There is one large state university -- University of Liberia -- located in Monrovia. The demand for places far exceed the capacity of the institution.

Like all Liberian ministries, the Ministry of Education has very little money to work with. It relies heavily on international donors, such as U.S. Agency for International Development, Peace Corps, World Bank, and other countries, such as Germany, Libya, and Japan for assistance.

The current government came to power through military take-over in April 1980. The current government has publically stated its determination to eradicate illiteracy and to improve the quality of life in the interior. The Ministry of Education's mission is, in part, to improve schools in the interior. The Peace Corps provides a significant cadre of teachers to work in the interior as a part of this mission.

PROBLEMS IN VOCATIONAL TRAINING

Prepared by: Mr. Joseph E. Butcher
PSI Associates, Inc./
Monrovia, Liberia

1. Few books and guides are available. Those which are found are old and expensive.

2. Most clients are at low grade achievement, and some may even be illiterates.

3. People in the interior and thousands in Monrovia are unskilled and unemployed. Your use of vocational techniques will need some revamping. Basic skills with tools as well as the fundamental skills are lacking.

4. Tools are in short supply for many individuals. The need to improvise is vital.

5. Organization of technical training may need to be on an individual basis. Beginning training where an individual is, then going from there at their own speed will prove profitable.

6. Some areas needed in the interior and in the city --

    A. Basic skills - reading, writing, English and some survival skills.

    B. Adult education on the primary and elementary level is needed.

    C. Skills in hand operations with technical tools must be introduced early.

    D. Where there is power equipment it is good to employ in training. Since there is a shortage of these, hand tool skills should be developed.

    E. Small shops and sidewalk shops are available. These include auto mechanics, shoemaking and repair, cabinetmaking, plumbing, electronics repair, heavy duty equipment operations, tailoring, building construction (masonry).

7. Vocational education pedagogy needs a competency-based technical training curriculum including:

   A. An hierarchy of skills from the most simple to the more complex.

   B. Performance objectives that are realistic.

   C. More hands-on activities.

   D. Criteria for performance.

   E. Competency-testing for records of achievement.

   F. An individualized system of instruction where possible and practical.

   G. Objective pupil evaluations.

   H. Development of entrepreneurial skills.

COMMON TOOLS IN VOCATIONAL EDUCATION

Prepared By: Mr. Joseph E. Butcher
PSI Associates, Inc./
Monrovia, Liberia

1. Most general trades handtools are in use in private industry and vocational schools.
2. Power equipment is used in the following trades:
    - Cabinetmaking
    - Machineshop
    - Auto Diagnostics and Repair
    - Drycleaning and Laundry
    - Ceramics (in short supply, but high demand)
3. Many of the materials in industry are imported. This makes the finished product very expensive.
4. Common woods are cheap grade mahogany and walnut.
5. In agriculture, technology includes:
    - Handtools -- shovel, short handle hoe
    - Tractors
    - Earth Movers
    - Small scale farming, including co-operatives
    - Marketing (which is seasonal)
6. In agriculture, common crops include:
    - Poultry and Swine farming
    - Eggs Hatchery
    - Rice farming

EXPERIENTIAL TEACHER TRAINING FOR PEACE CORPS VOLUNTEERS

Vocational Instructors

Santo P. Marzullo
University of the District
of Columbia

(Marzullo)

Peace Corps Training Objectives (From Proposal)

PSI/UDC Training Objectives (From Proposal)

Competencies for the Job

Each student/teacher will deal specifically with those competencies which a vocational education teacher must acquire to effectively guide and direct the learning activities of his students.

The student will study, practice and demonstrate the specific skills required to: (1) set the climate for instruction, (2) motivate students, (3) present new skills and related trade information in a variety of approaches including the utilization of supportive media and (4) evaluate a learner's progress.

Special emphasis will be given to developing learning modules in accordance with the Competency Based Curriculum used in the District of Columbia Public Schools and the University of the District of Columbia.

References/Reading Materials

Jaeger, Richard M. - Minimum Competency Achievement Testing,
Berkeley, McCutchan Publishing Corporation, 1980.

Knaak, William C. - Individualizing Vocational and Technical Instruction,
Columbus, Charles E. Merrill Publishing Co, 1975

Pautler, Albert J. Jr., - Shop and Laboratory Instructor's Handbook,
Boston, Allyn and Bacon, Inc., 1978.

Talmadge, Harriet - Systems of Individualized Education,
Berkeley, McCutchan Publishing Corp., 1975.

(Filmstrips and Tapes)

January 11-15
January 18-22
(STUDENT Teaching)

Methods of Teaching Technology in Industrial Arts and Vocational Education

Course Catalog Description:

This course deals specifically with the competencies which the Industrial Arts/Vocational Education teacher must acquire to effectively guide and direct the learning activities of his students.

Required Text:

Pautler, Albert J., Jr.,"Shop and Laboratory Instructor's Handbook" Allyn and Bacon, Inc. 1978

Course Terminal Objectives:

T.O.1. Final Examination accomplished via demonstrating mastery of subject matter in Session VI to XIV.

T.O.2. Mid-Term Examinations accomplished via demonstrating mastery of subject matter in Session I to V.

T.O.3. Course project Report

* Develop a tropical outline for the course that you plan to teach.

* Develop one instruction unit

Description: Follow format suggested in required text (Ch.5.,p.80 & 84).

For the following three objectives;each student will develop three(3) subtopics from the developed instruction unit, into three seperate instructor's lesson plans.Enabling each student to:

T.O.4. Demonstrate Ability to present a Demonstration Lesson (Actual Practice)

T.O.5. Demonstrate ability to present a lesson using projected media (Actual Practice)

T.O.6. Demonstrate an illustration lesson (using audio visual)

(MARZULLO)

SESSION	UNIT	DATE	ENABLING OBJECTIVES
1	INTRODUCTION AND ADMINISTRATIVE MATTERS	1/11	Introduction of each student. Introductory remarks concerning the course and the required routine administrative matters.
	OVERVIEW OF THE COURSE AND THE STUDENT'S PERFORMANCE REQUIREMENTS	1/11	Describe course content to the students, review the instructional schedule and the performance requirements for each student.
2	PRINCIPLES OF LEARNING	1/11	Upon the completion of this unit of instruction the student must be able to differeniate between learning and teaching. Also, he must be able to describe the principles of learning in relation to psychology and in relation to teaching.
3	LESSON CONTENT DEVELOPMENT	1/11	At the completion of this unit the student must be able to describe how learning objectives are determined, how to select lesson content and organize lesson materials in a sequential

(MARZULLO)

SESSION	UNIT	DATE	ENABLING OBJECTIVES
			manner. He must be able to describe how a lesson is a part of a course, he must be able to describe how a series of lessons are arranged into a complete course.
4	LESSON ORGANIZATION	1/12	Following this unit of instruction the student must be able to describe how a lesson is organized using the four-step pattern.
5	LESSON PLAN PREPARATION	1/12	Upon completion of this unit the student must be able to describe the steps in preparing to teach a lesson and must be able to write a lesson plan.
6	METHODS FOR PRESENTING NEW SKILLS	1/12	Upon completion of this unit of instruction the student must be able to list several methods for introducing and presenting new skills to the learner.
7	PROCEDURES FOR THE PRACTICING OF NEW SKILLS BY THE LEARNER	1/12	At the completion of this unit the student must be able to

(MARZULLO)

SESSION	UNIT	DATE	ENABLING OBJECTIVES
			describe several procedures for practicing new skills.
8	METHODS FOR PRESENTING INFORMATION	1/13	Upon completion of this unit the student must be able to demonstrate how related information and technical information is used in conjunction with other shop instruction.
9	TECHNIQUES FOR MASTERING INFORMATION	1/13	Following the completion of this unit the student must be able to describe the techniques that are used in mastering information as a means of problem solving.
10	METHODS FOR TESTING SKILLS AND METHODS FOR TESTING KNOWLEDGE	1/14	At the completion of this lesson the student must be able to use testing as a method for testing performance skills and for testing acquired knowledge.
11	TEACHING RELATED SUBJECTS	1/14	At the completion of this lesson the student must be able to list the techniques and characteristics for teaching related subjects.

(MARZULLO)

SESSION	UNIT	DATE	ENABLING OBJECTIVES
12	STUDENT PRESENTATION	1/15	Each student must demonstrate his ability to successfully apply basic teaching methods in presenting a unit or a lesson.
13	STUDENT PRESENTATION	1/15	
14	STUDENT PRESENTATION		Each student must demonstrate his ability to successfully apply basic teaching methods in presenting a unit or a lesson.
15	REVIEW, SUMMARY AND FINAL EXAMINATION		To review the course material covered in light of the stated course objectives.

1/18 - 22 STUDENT Teaching
1/25 - 29 Week FOUR
INDIVIDUAL EVALUATION
PROJECT COMPLETION
POST- ASSESSMENT

(MARZULLO)

January 4-8

University of D. C.

Van Ness Campus

COURSE CONSTRUCTION & DEVELOPING BEHAVIORAL OBJECTIVES

This course is a working application of the basic objectives in Course Construction. The student will study and demonstrate proficiency in: a) selection of course content for instruction, b) writing behavioral objectives, c) establishing instruction, e) selection of alternate strategies, and f) evaluation of student performance by developing a mini-course curriculum.

A. Introductory

1. course requirements
2. coverage
3. references
4. term projects
5. plan of operation

B. Basic Elements of an Instructional Plan

Types of curriculums
Planning, Organizing, Leading, Controlling
Strategy of Instructional Development

C. Job Descriptions and Task Analysis

1. Preparation for plan implementation
2. Course objectives
3. Prerequisites

D. Developing Educational Philosophy

1. Local
2. State and District
3. Regional
4. National

E. Establishing Specific Course Objectives

1. Qualities of useful objectives
2. The instructional objective
3. Conditions and criterion of objectives
4. Exercises in preparing objectives

(MARZULLO)

F. Analyzing a Course for its Basic Operations

The instructional analysis
Operations and work activities
Related information analysis
Assembling the course of study

G. Selection of Instructional Procedures

1. Sequencing of instructional units
2. Lesson plan development
3. Alternate strategies

H. Improving Course Efficiency/Effectiveness

1. Refining of objectives
2. Feedback information
3. Revisions

I. Developing Instructional Modules

The learning package
Programmed instruction - Individualized instruction

J. Supportive Aids

K. Interrelationship With World of Work

L. Staff and student planning

M. The Mini-Course

N. Inclusion of additional coverage as time permits

O. Special assignments are proposed.

(MARZULLO)

COURSE CONSTRUCTION AND BEHAVIORAL OBJECTIVES.

At the end of this course the student will be able to:

1. Demonstrate cognition and proficiency in selecting course content.
2. Demonstrate cognition and proficiency in writing behavioral objectives.
3. Establish sequence and heirarchy of objectives in a course under development
4. State alternate strategies for achieving individualization within his course
5. Select and demonstrate at least two alternate strategies for achieving a specific objective.
6. Compose and present an evaluation instrument for one specific objective.
7. Produce a fully=developed unit based upon a terminal objective of the course being developed by the student.
8. List the major objectives and the sub-objectives of his course.
9. Define and give examples of cognitive, psycho-motor and affective objectives.
10. Produce a mini-course which includes: Terminal Course Objectives, One Unit which has Course outline, Sub-objectives, alternate learning strategies, evaluation instrument, annotated bibliography, and class schedule.

REQUIRED TEXT: Pacel, David, Individualizing Vocational and Technical Instruction, Charles E. Merrill, 1975

(MARZULLO)

Curriculum Construction and Development of Behavioral Objectives

1. What are the possible effects on the curriculum if learner abilities and interests are not taken into consideration?

2. What are four major criteria for selecting a task for which school instruction should be provided?

3. List the tasks involved in actually doing a job in your major area. Determine the prerequisites for the instruction to prepare a person to do this job.

4. Develop instructional objectives for three (3) of the tasks you identified above.

5. In what way do related subjects differ from related information?

6. Select the instructional operations for your major subject or occupation. Using these operations, arrange them in an instructional order.

7. Prepare a course outline for a subject you plan to teach in your major area of concentration.

8. Describe in detail, how a teacher may provide for individual differences.

9. State several objectives which support a philosophy you hold regarding your major area of concentration or your major work area, justify this in light of the current demands of society, industry and upward mobility.

10. What are some of the current misconceptions of course objectives in terms of their achievements?

(MARZULLO)

[illegible]
[illegible]

1. What is your concept of the meaning and fuction of general education? What are some of the activities that might be labeled "general education?"

2. In what way does a vocational-homemaking class differ from homemaking classes offered on a practical arts basis?

3. List five (5) objectives which support a philosophy you hold regarding vocational education.

4. What brought about the development of technical education as we know it today?

5. Illustrate ways and means of assisting students to apply what they learn.

6. Give five (5) illustrations of learning through senses other than sight and hearing.

7. Prepare a tentative plan for constructing a course of instruction for your major subject.

8. List several examples of students failing to learn because of an unwise assignment by the teacher.

9. Outline a curriculum pattern which you have experienced. Critically evaluate this pattern.

10. A well known quotation states: "Besides having an understanding of the principles of learning, the successful teacher must know how to apply these principles." Discuss this with a critical view.

(MARZULLO)

[illegible]

[illegible]
October 20, 1977

NOTE: Please respond to the following problems with precision. Illustrations may support your solutions.

Problem I:
Define the following terms:

A. Objectives

B. Sub-objectives

C. Prerequisites

D. Learning activities

E. Post assessment

Problem II:
Describe the importance of objectives to the teacher and to the student.

(MARZULLO)

Problem III:

Develop five (5) performance objectives. Indicate the performance, condition, and criterion in each objective.

Problem IV:

Select any two (2) of the above objectives and prepare an hierarchy of sub-objectives (enabling objectives) for the two selections. Justify your development with narrative statements.

Problem V:

Prepare a brief statement setting forth your general concept of the meaning of "Curriculum."

General Objective: The participants will prepare curriculum guides in behavioral terms for the courses to be taught during the spring quarter. The exercise will be the first of a series of planned treatments for staff development in the Bachelor of Science Degree Program.

Specific Objectives	Recommended Learning Activities	Criteria for Evaluation
A. To write specific objectives in behavioral terms	1. Prepare a pre-assessment test which predicts the learning strategy to be employed in each course.	1. The learner will write all of the specific objectives for the courses to be taught during the spring quarter.
B. To develop learning activities that meet specific criteria	2. Write out a complete unit including the learning patterns, objectives, and criterions to be utilized.	2. The learning experiences must be sequential and integrated with the three Bachelor of Science Program components selected for changing teacher behavior in the classroom.
C. To choose the performance that represents the criterion level sought.	3. Connect the bibliography to each specific unit.	3. All objectives must be measurable by an acceptable standard which may be: (a) observable (b) written (c) manipulative
	4. Suggest alternatives for reaching stated objectives.	
	5. Develop teaching plans covering points to be stressed in one or more lessons	

(MARZULLO)

[illegible] will be able to develop X-Rays in the [illegible] clearly.

[illegible] a list of 100 medical terms, the student will be able to define and spell these words with 90% accuracy.

13. Given a set of dentures the stddent will be able to identify the third molar.

14. Be able to appreciate the medical legal aspects of practical nursing.

42

(MARZULLO)

The student will be able to appreciate the necessity for accuracy in spelling medical terminology.

3. The student will develop an awareness of surgical technology by reading the textbook, and participating in classroom experiences.

4. After textbook assignments and lectures the student will gain knowledge of tooth structure.

5. The dental assistant will be able to obtain knowledge in dental prostheses.

ven a set of abdominal surgical instruments the student will select the abdominal etractor.

Given a set of instruments the student will be able to accurately set up a tray for oot canal therapy.

7. After 60 minutes of instruction and laboratory practice the student will demonstrate the ect asceptic technique of inserting a foley catheter in a female patient.

At the end of 3 hours of instruction, the student will be able to identify types of blood.

The student will be able to identify sutures.

(MARZU1/0)

1. Define Mager"s three criteria for behavioral objectives.

2. Define the differences between the psychomotor and cognitive domains.

3. Discuss; (a) the need for affective objectives and (b) the difficulty in using them.

4. Identify Tyler's three main sources for curriculum development.

5. Differentiate between the ENDS and MEANS in terms of the selection and implementation of curriculum.

6. What does Mager mean when he refers to Avoidance and Approach Behaviors?

Part B. In the objectives below, underline the parts of each;

1. Performance
2. Condition
3. Standard

If The objective is lacking any part, rewrite the objective to include all parts.

OVERVIEW OF WEEKS 2 AND 3

Weeks 2 & 3:

(a) Subject - area upgrading at UDC College of Education.

(b) Practice teaching in inner-city schools.

(c) Continued secondary projects training.

(d) Cross-cultural training.

(e) Mid-project evaluation of volunteers.

Outcomes for Weeks 2 & 3:

Each volunteer will have completed one instructional package to be used in their classroom in Liberia.

Each volunteer will have completed one in-service training workshop for their Liberian counterparts.

AMERICAN PEACE CORPS SYLLABUS

VOCATIONAL AGRICULTURE LIBERIA VOLUNTEERS

GROUP B

JANUARY 11 - 22, 1982

PREPARED BY:

Dr. Barbara L. Smith
Interim Dean
College of Education and Human Ecology
University of the District
  of Columbia
and
PSI Associates, Inc.

PEACE CORPS TRAINING OBJECTIVES

1. To provide the volunteer with a set of competencies necessary for teaching basic agriculture/horticulture in rural elementary schools.

2. To provide the volunteer with entry level skills to develop a self-sustaining school farm for the local community.

3. To provide the volunteer with techniques necessary to organize 4-H or other appropriate farming clerks.

4. To provide the volunteer with a set of methodologies for incorporating agricultural concepts into the regular curriculum.

5. To provide the volunteer with entry level techniques for assisting land extension agents.

6. To provide the volunteer with a cadre of agricultural related auxiliary projects ranging from literacy training to seminar development for farmers.

COMPETENCIES

The Volunteer Will:

1. Demonstrate the process of agriculture by performing at least three of the following process skills:
   - a. conducting soil analysis
   - b. experimentation with vegetation/horticulture
   - c. planning a school farm under in-country seasonial conditions
   - d. planning crop production that will enhance soil conditions
   - e. planning a re-forestation project.
2. Identify and give the use of library references related to agriculture available internationally.
3. Demonstrate communication and analytical skills by writing a syllabus for teaching agriculture in Liberia.
4. Demonstrate fundamental skills in agriculture from equipment/test usages to communication of scientific information.
5. Describe at least five characteristics common to all living conditions that impact upon attitudes towards food production.
6. Distinguish among several crop production approaches/ theories given cultural values and beliefs.
7. Demonstrate the ability to complement and consult with a farming interest group.
8. Describe the life activities and economic importance of agriculture in rural Liberia.

9. Describe the morphalogical and physiological make up of the vegetative organs of seed plans by observation of prepared slides.

10. Identify various types of plans, animals, and protests on the basis of their physical characteristics by using a classification key.

11. Describe biological factors such as feeding levels and food wed, and physical factors such as soil, temperature, and biogiochemical cycles that influence an ecosystem by using laboratory investigations and field activities.

REFERENCES/READING MATERIALS

Skinner, Snider W., Liberia's Agricultural Economy In Brief, 1968, U.S. Department of Agriculture.

U.S. Department of Agriculture, Agricultural Situation: Africa and Middle East.

Otto and Towles, How Do Seed Parts Develop Into Young Plants, 1977.

Otto and Towles, Biology Investigations, 1973.

Additional references will be delivered as handouts.

COURSE CONTENT

PEACE CORPS TRAINING
GROUP B

WEEK I (DAILY SCHEDULE)

Monday, January 11, 1982

9:00a.m. - 10:00a.m.: Introductory conference with Master Teacher.

10:00a.m. - 11:00a.m.: Pre-assessment of knowledges.

11:00a.m. - 12:00noon: Review of Agricultural conditions in Liberia.

12:00noon - 1:00p.m.: Lunch

1:00p.m. - 3:00p.m.: Review Liberia Agricultural Situation As of 1981.
Handout: Current Situation and Outlook for Liberia

Tuesday, January 12, 1982

9:00a.m. - 12:00noon: Reviewing growing conditions and usages of Liberia's natural agricultural edited products.

12:00noon - 1:00p.m.: Lunch

1:00p.m. - 2:00p.m.: Review of Role Expectancy in Liberia

2:00p.m. - 3:00p.m.: The Role of a Teacher Trainer
Handouts: Teaching Skills
Teaching Methodologies

Wednesday, January 13, 1982

9:00a.m. - 12:00noon: Assessment Techniques for Teacher Incorporating Agriculture into Regular Curriculum

12:00noon - 1:00p.m.: Lunch

1:00p.m. - 2:00p.m.: Preparing Teaching Modules in Agriculture

2:00p.m. - 3:00p.m.: Explanation of Teaching Module Development
Assignment development of Teaching Module

WEEK I (DAILY SCHEDULE) (CONTINUED)

Thursday, January 14, 1982

9:00a.m. - 10:00a.m.: Entry level skills as a teacher and with local extension agents/syllabus preparation. (Handouts)

10:00a.m. - 12:00noon: Ancillary Projects in Agriculture (Handouts).

12:00noon - 12:30p.m.: Lunch

12:30p.m. - 1:30p.m.: Vegetation and horticulture.

2:30p.m. - 3:30p.m.: Planning a School Farm (Handouts).

Friday, January 15, 1982

9:00a.m. - 10:00a.m.: Organizing vocational education and agricultural cloles. (Handouts).

10:00a.m. - 12:00noon: Teacher competencies for agriculture (Handouts.)

12:00noon - 12:30p.m.: Lunch

12:30p.m. - 1:30p.m.: Preparing Supplemental educational materials.

1:30p.m. - 3:30p.m.: Cross-cultural special entry techniques.

PEACE CORPS TRAINING
GROUP B

WEEK II (DAILY SCHEDULE)

Monday, January 18, 1982

9:00a.m. - 9:30a.m.: Conference with Master Teacher

9:30a.m. - 11:30a.m.: Review of Practice Teaching Module

11:30a.m. - 12:00noon: Lunch

(30 minutes travel)

12:30p.m. - 3:00p.m.: Practice Teaching Assignment: Prepare Soil Testing Teaching Module

Tuesday, January 19, 1982

9:00a.m. - 12:00noon: Practice Teaching

12:00noon - 1:00p.m.: Lunch

1:00p.m. - 3:00p.m.: Nursing Teaching Demonstration

Wednesday, January 20, 1982

9:00a.m. - 10:30a.m.: Review of Syllabi Preparations with Master Teacher for Final Pre-test

10:30a.m. - 12:00noon: Review of Mini Agriculture Kits

12:00noon - Lunch

12:00noon - 3:00p.m.: Visit Department of Agriculture

Thursday, January 21, 1982

9:00a.m. - 10:30a.m.: Review of materials from Department of Agriculture

WEEK II (DAILY SCHEDULED) (CONT'D)

Thursday, January 21, 1982 (Continued)

10:30a.m. - 12:00noon: Review of attitudes towards crop production.

12:00noon - 1:00p.m.: Lunch

1:00p.m. - 3:30p.m.: Teaching at the college level.

Friday, January 22, 1982

9:00a.m. - 12:00noon: Entry levels for agriculture volunteers Post-test

12:00noon - 3:30p.m.: Cross-cultural curriculum with list materials.

EVALUATION

1. A syllabus for teaching agriculture will be the expected final product.

2. A booklet of ancilliary products will be a final product.

Outline For Syllabus

Group B: Vocational Instructors: Home Economics Program

I. Planning the Home Economics Program
  A. Program Plan and Organization
  B. Philosophy, Goals, Definition

II. Deciding What to Teach
  A. Program Structure
  B. Approaches to Teaching
  C. Society Values and Goals

III. Understanding How People Learn
  A. Changing Behavior
  B. Hindrances to Learning
  C. Factors Contributing to Learning
  D. Needs of Individuals and Families

IV. Determining Learning Experience
  A. Group Experiences
  B. Experiences in the Laboratory
  C. Home and Community Experiences

V. Evaluation of Progress in Home Economics

Training Objectives

1. To provide qualified teachers to teach Home Economics to rural students as a vocational skill.
2. To train teachers to help implement a program that provides students the opportunity to learn useful skills.
3. To prepare teachers for training counterpart teachers.

Competencies for the Job

Participants should be able to:

1. Appraise and demonstrate the ability to communicate skills in articulating concepts and ideas in career development.
2. Plan programs for the preparation of youth and adults for home and family living in a consuming society.
3. Plan programs for the development of youth and adults for employment in home economics related occupations.
4. Demonstrate adequate knowledge in subject matter.

References:

1. Moore, Bernice and Wayne Holtzman, Tomorrow's Parents - A Study of Youth and Their Families. Austin: Hogg Foundation for Mental Health, University of Texas Press.

2. Robert F. Mager, Preparing Instructional Objectives. Palo Alto, California: Fearon Publishers.

3. Bloom, Benjamin et. al., Taxonomy of Educational Objectives New York: Longmans, Green.

4. Champoux, Ellen M., and Bud Hunt, "Draw on Community Resources to Improve Your Curriculum," Illinois Teachers of Home Economics, lx: 97-97; 1965-1966.

5. Gans, Herbert J., The Urban Villager. New York: The Free Press of Glencoe, 1962.

6. Goodlad, John, The Changing School Curriculum. New York: Fund for the Advancement of Education, 1966.

7. Haurghurst, Robert, Education in Metropolitan Area. New York: Allyn and Bacon, 1966.

8. Herritt, Robert E., and Nancy H. St. John, Social Class and the Urban School. New York: John Wiley and Sons, 1966.

9. Bailard, Virginia, and Ruth Strang. Parent-Teacher Conference. New York: McGraw-Hill, 1964.

10. Educating the Teenager in Human Relations, Management of Resources. Washington, D.C.: American Home Economics Association, 1966.

11. McGrath, Earl, The Changing Mission of Home Economics. New York: Teachers College Press, Columbia University, 1968.

12. Contemporary Issues in Home Economics. Washington, D.C.: National Education Association, Department of Home Economics.

13. Fleck, Henrietta, Toward Better Teaching of Home Economics. New York: Macmillan, 1968.

14. Spitze, Hazel T., "The Structure of Home Economics as a Basis for Curriculum Decision" Illinois Teacher of Home Economics, 9: 62-69; 1965-1966.

References (continued)

15. Brown, Marjorie (editor) Home Learning Experiences in the Home Economics Program. Minneapolis: Burgess Publishing Company, 1963.

16. Byrd, Flossie M., and Minne H. Woodall, An Approach to the Study of Human Development and the Family through Literature in the Secondary Schools. No. 1. Prairie View, Texas: Prairie View Agriculture and Mechanical College, December 1966.

17. Future Homemakers of America, Office of Education, United States Department of Health, Education and Welfare: A Guide to Help You Grow as a Future Homemaker of America, 1964; An Advisor's Guide to Help Future Homemakers of America Evaluate Their Own Growth, 1967; and Chapter Handbook, 1966.

18. Smith, G. Kerry (editor), In Search of Leaders - Washington, D.C.: American Association for Higher Education, National Education Association, 1967.

19. Somerville, Rose M., Family Insight through the Short Story. New York: Teachers College, Columbia University, 1964.

20. Worters, Jane, Group Guidance: Principles and Practices New York: McGraw Hill, 1960.

Course Content

- I. Planning the Home Economics Program
    - A. Cooperative Program Planning at the Local Level
    - B. Sources of Home Economics Objectives
    - C. Defining Home Economics Objectives
    - D. Relating Objectives to Learning Experiences and Evaluation
    - E. Application of Principles in Home Economics
- II. The Home Economics Program
    - A. Typical Home Economics Program
    - B. Role of the Home Economics Teacher
    - C. Philosophy of Home Economics
    - D. Goals of Home Economics
- III. What are You Going To Teach
    - A. The Structure of Home Economics
    - B. Concepts and Generalizations Approach
    - C. Problem Approach
    - D. Effects of Social and Technological Changes
    - E. Psychosocial and Cultural Factors
- IV. Understanding How People Learn
    - A. The Process of Changing Behavior
    - B. Hindrances to Learning
    - C. Factors Contributing to Learning
- V. Learning Experiences
    - A. Effective Group Work
    - B. Experiences in the Laboratory
    - C. Home and Community Experience
    - D. Independent Study
- VI. Evaluation
    - A. Functions Evaluation
    - B. Measuring Student Progress Toward Learning
    - C. Evaluating the Setting for Learning Experiences
    - D. Growth and Experience
    - E. Role Differentiation of Teachers

Evaluation

Participants will engage in discussions of each category of topics. These discussions will focus on:

1. Comparisons
2. Contrasting
3. Critizing
4. Describing and/or illustrations, and
5. Relating information to every day life in simple terms.

Assignment For Field Placement

(Arranged By: UDC Office of Field Placement)

Period: Monday, January 18, 1982 through Friday, January 22, 1982

All field placements are in the D.C. Public Schools in traditional classroom settings:

Area	Placement
Basic Adult Education	Adult Education Demonstration Center Franklin Center 13th and K Streets, N.W.
Math and Science Education	Ballou High School and Mann Elementary School Program Demonstration Science Program
Reading and Language Arts	Rabaut Jr. High School
Art Education (Industrial)	Penn Vocational Center
Drafting	Woodson High School
Electrical/Auto Mechanics	Phelps Vocational High School
Home Economics and Health Education	Burdick High School
Agriculture Education	U.S.D.A. Experimental Station and Phelps Vocational High School
Radio Communications Education/Evaluation	WYCB - AM Radio National Press Building

University of the
District of Columbia

COLLEGE OF EDUCATION AND HUMAN ECOLOGY
1100 HARVARD STREET, N.W.,
WASHINGTON, D.C. 20009

OFFICE FOR COORDINATION OF FIELD
SERVICES AND STUDENT TEACHING

Dear Co-Worker,

The University of the District of Columbia is very grateful that you have indicated your willingness to guide one of the Peace Corps Volunteers during this semester.

This letter introduces ______________________________ who

has been assigned to work with you from ________________ to ________________.
Date Date

The College Supervisor will have a meeting with cooperating teachers and will look forward to seeing you at that time.

We are giving you some copies of materials, and we hope that these materials and conferences with the students will be helpful in interpreting the program and it's goals.

We hope that each student will be able to participate in a small way from the first day in your classroom. Gradually he/she should be able to increase his/her responsibilities.

We appreciate this opportunity to be associated with you in such a vitally important professional endeavor. We shall try to do everything possible to insure maximum results from the time and effort put into this program. We know that you will do the same. If any problems arise please do not hesitate to get in touch with your student's supervisor or with me. The office phone numbers are 673-7049 or 673-7050.

Thank you again, and best wishes.

Sincerely yours,

Miriam C. Everette

Miriam C. Everette
Director of Student Teaching

UNIVERSITY OF THE DISTRICT OF COLUMBIA
GEORGIA AVENUE HARVARD STREET CAMPUS
1100 HARVARD STREET, N. W.
WASHINGTON, D. C. 20009

OFFICE FOR COORDINATION OF FIELD
SERVICES AND STUDENT TEACHING

The Seven Components of An Instructional Activity

1. Initiating The Class
2. Stating The Behavioral Objective
3. Recalling The Immediate Prerequisites
4. Reviewing Home Study Assignments
5. Introducing New Information
6. Providing Practice and Feedback
7. Closing The Class

TABLE ONE

CHARACTERISTICS AND PROPERTIES OF COMPONENT ONE OF A CBC INSTRUCTIONAL ACTIVITY

COMPONENT	PROPERTIES	CHARATERISTICS
1. Initiating the class	1. A. Regular Pattern	1.A. Pose a problem or puzzle
	B. Variation Which Pattern	B. Explain how an activity relates to gaining a new competency
	C. Draws Learner Focus to Teacher	C. Have students recite or perform some action in unison
		D. Present an interesting or unusual fact
		E. Offer an analogy using previously leanred material
		F. Ask for recognition of familiar materials

TABLE TWO

Summaries the characteristics and properties associated with component two of a CBC instructional activity.

Characteristics and Properties of Component two of a CBC Instructional Activity

COMPONENT	PROPERTIES	CHARACTERISTICS
. Stating the Informal Behavioral Objective	2. A. Present the objective in Words appropriate to the student Audience	2. A. Write a Statement - the Informal Behavioral Objective at the beginning of the class
	B. Present the objective in Writing (e.g. chalkboard, overhead, slide, or bulletin board)	
	C. State the objective in words	
	D. Have Two or Three students in Class Restate the Objective in their own Words	

TABLE THREE

Summaries the characteristics and properties associated with component three at a CBC instructional activity.

Characteristics and Properties of Component Three of a CBC Instructional Activity

COMPONENT	PROPERTIES	CHARACTERISTICS
3. Recalling the Immediate Prerequisites	3. A. Recall Needed Prerequisites for Mediation	A. Review previous classes
	B. Select Prerequisites Competencies from Learning Sequence	B. Show parts of media used to present information originally
		C. Summarize the competercies needed
		D. Recall with assessment tasks already used for testing
		E. Review from printed materials

TABLE FOUR

Characteristics and Properties of Component Four of a CBC Instructional Activity

COMPONENT	PROPERTIES	CHARACTERISTICS
4. Reviewing the study Assignment	4. A. Review Home Study Work Immediately	4. A. Student correct errors
	B. Use Home Study as Teaching Not Testing	B. Exchange papers
	C. Provide Positive Feedback for students Effort	C. Students explain tasks

TABLE FIVE

Characteristics and Properties of Component Five of A CBC Instructional Activity

COMPONENT	PROPERTIES	CHARACTERISTICS
5. Introducing New Information	5. A. Organize the information by presenting the concept of principle and then illustrations of it; or present examples and require students to create the concept or principle	5. A. Lecture B. Socratic Narrative C. Media Presentation D. Written Passage E. Stimulation
	B. Define all new terms	F. Laboratory
	C. Offer clear concise examples	G. Practical H. Teacher Demonstration
	D. Provide for an active learner role whenever possible	I. Teacher Explanation
	E. Provide appropriate visual or oral clues or other memory aids	

TABLE SIX

Summarizes the characteristics and properties associated with component six of a CBC instructional activity.

Characteristics and Properties of Component Six of a CBC Instructional Activity

COMPONENT	PROPERTIES	CHARACTERISTICS
6. Providing Practice	6. A. Space practice over several trials	6. A. Teacher or written materials directs activity
	B. High ability students will probably need less practice that other students	B. Include only pertinent information
	C. Design practice to move from easy to difficult items	C. Provide detailed guidance
	D. Provide real problems whenever possible	D. Provide positive feedback for all efforts
	E. Very the problem settings	E. Organize for memorization of patterns with mnemonics
	F. Offer individual positive feedback	F. Offer wide range of problem types
	G. Self Assessment	G. Provide real settings and actual conditions whenever possible

TABLE SEVEN

Summarizes the characteristics and properties associated with component seven of a CBC instructional activity.

Characteristics and Properties of Component seven of a CBC Instructional Activity

COMPONENT	PROPERTIES	CHARACTERISTICS
7. Closing	7. A. Summary	7. A. Summarize the activity
	B. Clarify Home study Assignment	B. Assign Home Study
	C. Assessment	C. Students Restate Home Study Assignment

COMPONENT	PROPERTIES	CHARACTERISTICS
		7. D. Administer Assessment Tasks

There are several general characteristics which apply to all instructional activities: (1) attempt to involve the student as an active learner whenever possible, (2) engage the learner in at least two (2) different responding modes for each instructional activity, (3) a minimum of two (2) different instructional activities are required to maximize the number of students acquiring a given behavior or competency, (4) the pattern of student responding modes should be difficult for the two (2) required instructional activities. Table Eight summarizes the various organizational formats of instructional activities and the student responding modes usually present.

UNIVERSITY OF THE DISTRICT OF COLUMBIA
GEORGIA AVENUE HARVARD STREET CAMPUS
1100 HARVARD STREET, N. W.
WASHINGTON, D. C. 20009

OFFICE FOR COORDINATION OF FIELD
SERVICES AND STUDENT TEACHING

TABLE EIGHT

Organizational Format for Instructional Activities and Student Responding Modes.

FORMAT	DESCRIPTION	STUDENT RESPONDING MODE
Lecture	1. Talk by a single speaker to a group.	1. Writing notes and listening
Lecture with Questions	2. A talk by a single speaker to a group. Questions by lecturer and by students.	2. Writing notes, listening, questinging, and responding
Student Demonstration	3. Student actually goes through porcedures as they are really conducted.	3. Writing notes and listening
Practiced Exercise or Laboratory	4. Students practice under conditions of minimum guidance in a real setting	4. Perform task, write steps, findings, and conclusions, and directions
Seminar	5. Group discussion of topic with extensive prior preparation	5. Listening, questions, reading or viewing for preparation
Case Study or Incident Study	6. Group analysis of preselected case history under the direction of an experienced discussion leader	6. Reading or viewing for preparation, writing notes, questioning, listening
Site Visits	7. Students go to actual site of operation, direct observation of place and procedures	7. Observing, listening, asking
Simulation	8. Real incident or event is acted out, real conditions are reconstructed to approximate actual setting.	8. Observing, analyzing, questioning, protected experience with no penalty for mistakes

Writen Passages	9. Textbooks, Journals, Manuals, and other printed materials examined	9. Reading, Note taking
Media	10. Information presented on film, slide/tape, filmstrips, video cassettes, or other media	10. Viewing, note taking, listening
Small Group	11. Limited number of students trying to resolve a given problem with little or no teacher assistance.	11. Discussion, writing, observing
Conference	12. Discussion by group members group comes to some conclusion about original problem	12. Reading, questioning, listening

EXIT COMPETENCIES FOR STUDENT TEACHERS

Student teacher____________________ School______________

Subject____________________ Grade Level______________

Observed by:____________________________________

DIRECTIONS: The student teacher will be appraised from 1 to 5 under each area under management performance and instructional performance. A rating of 1 means Outstanding; 2 means Very Good; 3 means Satisfactory; 4 means Conditional; and 5 means Unsatisfactory.

	Date: _____ Time: _____ Initial Appraisal	Date: _____ Time: _____ Mid-Point Appraisal	Date: _____ Time: _____ Final Appraisal
A. Management Performance			
1. The appraisee will demonstrate the ability to communicate with students.....			
• Praises and encourages students' actions			
• Accepts and uses students; ideas clarifies, builds, and develops			
• Communicates with students in terms they can understand			
• Develops students' understanding of the needs of various roles, rules, goals			
• Provides experiences which promote the development of critical and independent thinking			
2. The appraisee will demonstrate a knowledge of and rapport with students and control of classroom			
• Provides recognition for individual student successes			
• Acts objectively in dealing with students' aggressive behavior			
• Creates an atmosphere of cooperativeness with mutual respect for feelings, rights, abilities of others.			

	Date: ____ Time: ____ Initial Appraisal	Date: ____ Time: ____ Mid-Point Appraisal	Date: ____ Time: ____ Final Appraisal
3. The appraisee will display a physical environment which facilitates positive learning... • Arranges furniture and materials in position for effective attainment of lesson objectives • Displays and uses bulletin boards, charts, pictures, and other visuals to enhance instruction • Controls and changes physical aspects (heat, light, ventilation, etc.)			
B. Instructional Performance 1. The appraisee will demonstrate knowledge of subject matter... • Reveals in instructional settings through objectives that the appraisee knows the content of his/her field • Identifies and relates subject matter to school curriculum/instructional program • Relates the subject matter to students' experiences			
2. The appraisee will apply knowledge of materials and techniques in subject field... • Adjusts materials to students' learning ability • Provides a variety of enriching learning materials • Utilizes students' help in establishing objectives, clarifying personal group goals and defining problems for study • Adapts new ideas and techniques			

	Date:________ Time:________ Initial Appraisal	Date:________ Time:________ Mid-Point Appraisal	Date:________ Time:________ Final Appraisal
3. The appraisee will demonstrate planning and preparation....... • Reveals in his/her objectives organized planning to include basic elements, such as: behavioral objectives, instructional activities, summary, evaluation, and assignment or follow-up • Has materials organized and easily accessible • Moves smoothly from one activity to another • Employs flexibility • Shows and maintains evidence of methods for evaluating students and meeting their needs • Organizes objectives to provide for continued growth of students			

OMMENTS/RECOMMENTATIONS:

FINAL

UNIVERSITY OF THE DISTRICT OF COLUMBIA

1100 Harvard Street, N.W.
Washington D. C. 2[illegible]

STUDENT TEACHER EVALUATION: SECONDARY

Name of Student ____________________ Date ____________________

Subject or Grade Taught ____________________ School ____________________

Cooperating Teacher use ✓ College Supervisor use X	A Outstanding A	B	C Average C	D	F Failing F
Competence in subject matter..........					
Knowledge of pupils..........					
Providing for health, welfare, and needs of pupils..........					
Control and influence over pupils..........					
Competence in motivating learning..........					
Planning and preparation..........					
Skillful use of techniques and materials....					
Evaluation of pupil progress..........					
Initiative, resourcefulness, and industry...					
Quality of speech..........					
Meeting responsibilities as a teacher, (out-of-class duties, records and reports, school procedures, school property)..........					
Professional relationships with teachers, administrative officers, parents..........					
Courtesy, tact, self control, poise..........					
Participation in school and community activities (meetings, extra curricular, PTA....					
Potential for growth as a teacher..........					

TO BE COMPLETED BY THE COOPERATING TEACHER:

Recommended Final Grade ______

Number of Absences ______
Number of Times Tardy ______
Comments:

____
Cooperating Teacher's Signature

TO BE COMPLETED BY THE COLLEGE SUPERVISOR:

Recommended Final Grade ______

Course Designation
Comments:

____
Signature of College Supervisor

TO BE COMPLETED BY THE STUDENT TEACHING DIRECTOR

Total Hours: Observation ______
Teaching

____
Student Teaching Director

OVERVIEW OF WEEK 4

Week 4:

(a) Review of teaching competencies acquired.

(b) Cross-cultural training.

(c) Secondary projects design and implementation training -- Adult literacy.

(d) Final evaluation of volunteers.

(e) Volunteers evaluation of the PSI training program.

(f) Exit counseling

Outcomes for Week 4:

Each volunteer will design a possible secondary project for Liberia.

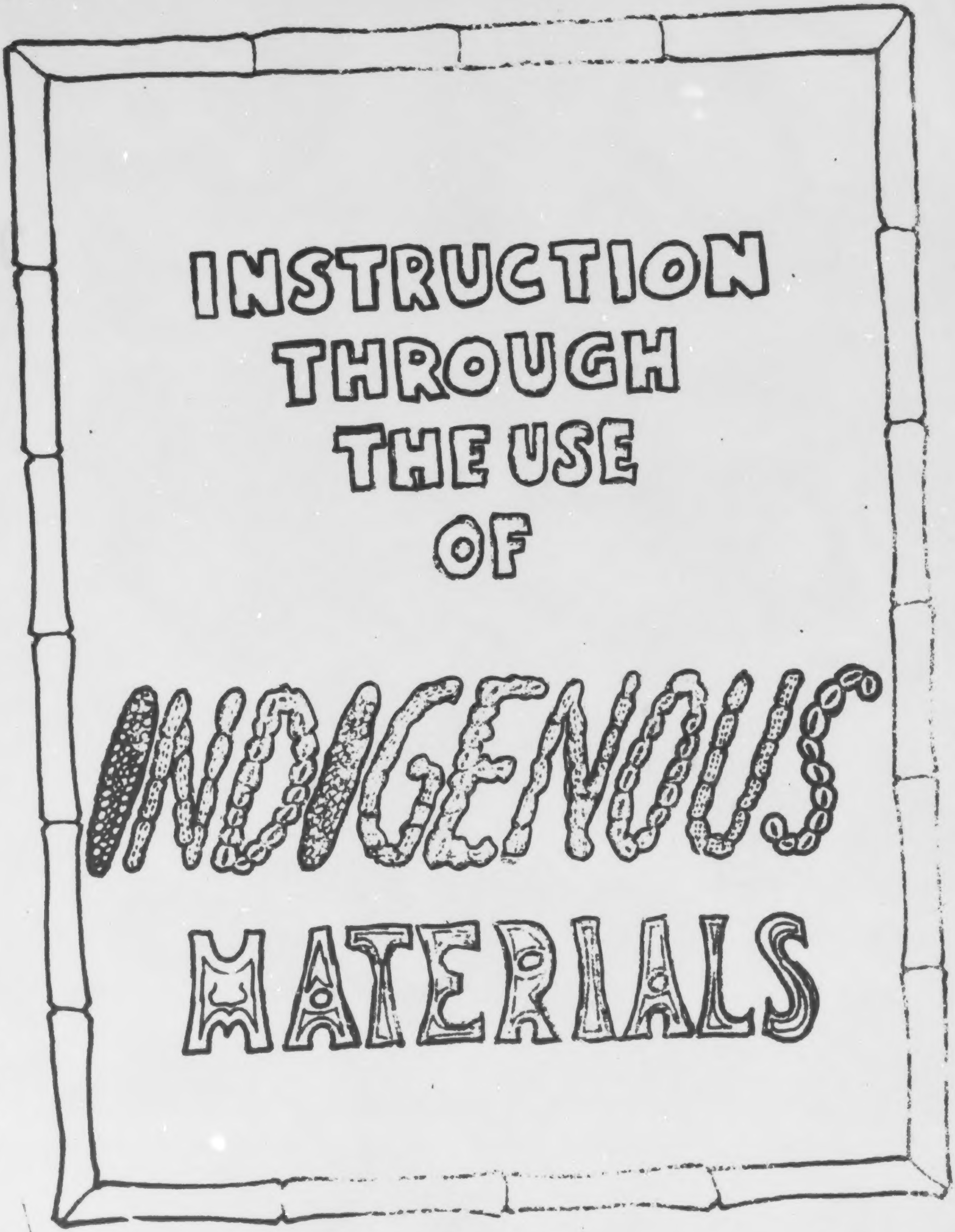
Each volunteer will evaluate the training program.

WEEK 4 AGENDA -- PSI PEACE CORPS TRAINING

GROUP B

	Monday January 25	Tuesday January 26	Wednesday January 27	Thursday January 28	Friday January 29
A.M.	8:30 - Bus to Optometrist for Eyeglass neutralization 9 - 12 - Individual Interviews and discussion of assignments (Room E-1)	8:00 - Meeting with Peace Corps Director (Room E-2) 9 - 10 - Group discussion, Adult Projects with Group C (Room E-2) 10 - 12 - Individual Interviews (Room E-4)	Open Day - Resources	8:30 - Bus to Shaw for Final Immunizations	OPEN
12-1	L	U	N	C	H
P.M.	1 - 5 - Individual Interviews and discussion of assignments (Room E-1)	1 -4 - Individual Interviews (Room E-4) 4:00 - Meeting with Peace Corps Nurse, Barbara Pyle (Room E-2)	Open Day - Resources Time to be announced - Liberian Embassy,	6:30 - 8:00 - Individual Hands-On Activities	OPEN
5:30	D I	N N	E	R	
7 All	6:30 - 8:30 Cross Cultural Group C (Room E-2)	6:30 - 8:30 Cross Cultural (Group C) - cont'd (Room E-2)	6:30 - 8:30 Cross Cultural (Groups A and B) (Room E-2)	6:30 - 8:00 Cross Cultural (Groups A & B) - cont'd 8:00 - Presentation of Certificates of Completion (Room E- 4)	--(Room E-4)

HANDOUTS (GROUP B)



INSTRUCTION THROUGH THE USE OF INDIGENOUS MATERIALS

INTRODUCTION --

Teachers say time and time again that they do not have materials to work with in the classroom. "How can we teach?" they ask. Many teachers fail to realize that a room full of new books does not guarantee good teaching nor learning. Teachers often do not see the world of indigenous resources around them which provides them with free teaching materials. Good teaching can take place without new books, manufactured materials, and expensive classroom equipment. Every teacher must learn to improvise. He must look at all times for materials which may be waste at the market place, the corner store, the farm, or the home. He can also have his students in the classroom help search for and prepare materials that can be used in the teaching-learning process.

Most teachers in Liberia's rural schools will find that they must develop their own teaching materials and instructional aids because textbooks are scarce. Indigenous materials --- those items native to Liberia suck as raffia, rattan, bamboo, shells, twigs, banana leaves, cassava flour etc are abundant and free. A teacher can plan learning activities for his/her students around the indentification, collection and preparation of the materials that are to be used as instructional aids.

By using indigenous materials, the teacher provides free teaching materials and instructional aids for his/her students. These materials help students learn important concepts, develop an appreciation for Liberia's natural resources, and understand the function and necessity of retaining traditional arts and crafts.

It is small wonder that children are anxious to get outdoors to enjoy the beauty of their world. especially when classroom walls are bare, when their work is not proudly displayed, when seating arrangements are rigid and formal, and the total environment is colorless.

Does this inhibiting environment happen because the teacher thinks of learning only in terms of facts and skills, by rote and memorization, by oral recitation and in other kinds of teacher led activities? Is the acquisition of facts and figures the only objective of education? This kind of learning provides a very small segment of the kind of learning students can best absorb. The teaching-learning act, to be both efficient and effective, demands that students demonstrate comprehension, application, analysis, synthesis and evaluation of the information presented by the teacher. This process requires the active participation, interest, emotionalism, conscious commitment, on the part of the learner as well as on the part of the teacher. Education is not a passive process that focuses solely on the offerings of a dreary textbook and notes in a notebook. The text and the notebook are *aids* to learning and provide a minimal environment in which to teach and to learn.

The purpose of this booklet is to expand the potentials for learning which, when properly used, will lead to affective learning.

Affective learning concerns the emotions and focuses on the reality of what the learner brings to the classroom---interest, humor, a questioning attitude, inquisitiveness, the love of mystery, the thrill of discovery, enquiry, and kind of commitment which, if used to advantage, makes teaching the most rewarding occupation available. These are the things which education is all about and they contribute to the vital acquisition of attitudes, behaviors, appreciations, interests, understandings, skills, morals, tastes, and standards which, in addition, characterize the educated man.

STUDENTS PARTICIPATION IN THE PREPARATION

All sorts of instructional aids contributes to effective learning. The interest that the preparation of these aids provide encourages students to develop favorable attitudes toward school. It also arouses and sustains interest in learning, motivates students to adopt self-directed activities, and helps to provide the kinds of experiences which lead to a transfer of skills and understanding. Research about teaching and learning shows that instructional aids when properly used enable students to learn more and to remember more for a longer period of time than similar students taught with conventional texts because these students participate in the teaching - learning process - they learn by doing.

Since each student learns best by a variety of teaching methods, teachers must learn to appreciate and use many approaches which are available through use of indigenous materials in the classroom. It is hoped that the ideas presented in this manual will help you to reach more of your students more effectively than ever before. Try to prepare some of these materials and discover what joy teaching can be. Experiment with these suggestions and try to find other materials available for use in making instructional aids. By all means, let the students share in making some of these instructional aids. Good luck in making your classroom a cheerful, colorful, exciting place for learning!

Contributors:

Dorothy Cooper formerly Instructional Materials
Coordinator

Edna Wordsworth formerly Elementary Education

Rita M. Roy, Language Arts & Social Studies
Consultant, USAID

John S. Williams, Head of Arts & Crafts Department,
K.R.T.T.I.

Marilyn Lashley, Teacher Trainer, Volunteer
Peace Corps Liberia.

INSTRUCTION

Through the Use of Indigenous Materials

Revised and Adapted
from
Instructional aids and ideas through of Indigenous
Materials, Curriculum and Materials Center, Department
of Education, Republic of Liberia and U.S.A.I.D.,
August 1967

Kakata Rural Teacher Training Institute
Kakata, Gibi Territory, Republic of Liberia
and
Peace Corps Liberia
August, 1979

THE TEACHING KIT

A TEACHING KIT is a collection of tools that is necessary for good teaching everyday. This KIT is prepared by the teacher before the opening of the school year. Each tool in the KIT is used over and over again by the children and the teacher. A good teacher cannot teach school without his TEACHING KIT ready at all times.

1. Pocket chart
2. Alphabet strip
3. Word pattern cards
4. Collection of pictures
5. Color chart
6. Patterns for drawing (used by the teacher, not the children)
7. Flannel board
8. Phonics cards
9. Numberline (see syllabus)
10. Clock face
11. Calendar
12. Number picture cards or chart 1-10 (grades 1 - 2)
13. Number chart 0-10
14. Number combination cards (see syllabus for combinations)
15. Place value chart (see syllabus)
16. Map of Liberia
17. String, raffia, yarn
18. Pins, pegs, thorns or reeds
19. Paper bags
20. A personal collection of stories, original stories, poems riddles, jingles
21. Geometric shapes
    Circle
    Square
    Rectangle (Large. Cut from cartons.)
    Triangle

22. Measuring tools
    cup
    pint gallon
    quart
    12" ruler   Both are made from a strip of wood or
    yard stick   reed but the inch marking must be accurate.
23. Marking pen or black crayola
24. Scissors
25. Cassava paste in jars
26. Old newspapers, magazines or catalogues
27. Collection of stones, shells, sticks and seeds.
28. Scarp cardboard, paper or cartons for name cards,
    language arts activities, etc.
29. Games (made by the teacher)
30. Permanent Seatwork (made by the teacher)

BULLETIN BOARDS

With the wealth of indigenous materials here in Liberia, there is no excuse for a teacher not constructing bulletin boards for the individual classroom. Materials that can be used as bulletin boards are:

1. A piece of bamboo or reed matting--the size would depend on wall space.
2. Firm side of a cardboard or light wood crate.
3. Square cardboard pieces from cartons.
4. Labanese paper.
5. Flannel board.

Directions:

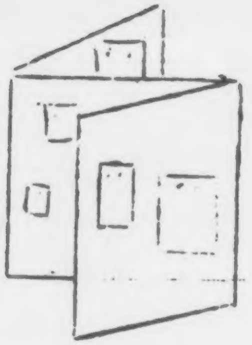
1. Cut the mat, carton or board to the desired size.
2. Paint it if paint is available.
3. If edges of carton or mat are rough, paste paper over the edge using cassava paste, magazine pages or newspapers cut in strips.
4. Tack the bulletin boards to the walls with nails, thorns, reeds or pegs.
5. Always mount your bulletin boards so that the children can reach them and that all mounted materials will be at their eye level.

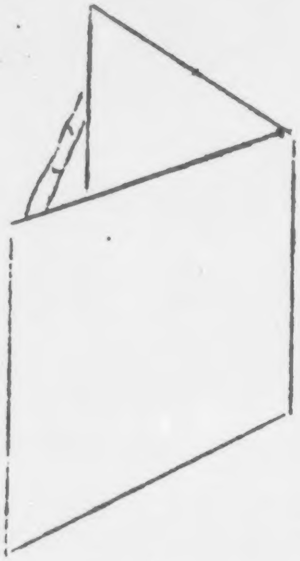
If one of the above mentioned materials is not available, the following suggestions can be used successfully:

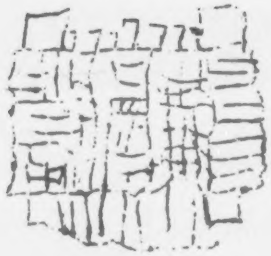
1. Open old rice bags at the sides. Wash and hang. Attach pictures to the open bags with reeds, thorns or pins.
2. Hang a piece of Fanti cloth or an old blanket.
3. Stretch a piece of wire, string or raffia across the room.
4. Place a bamboo pole across the corner of the room. This also makes an excellent chart holder.

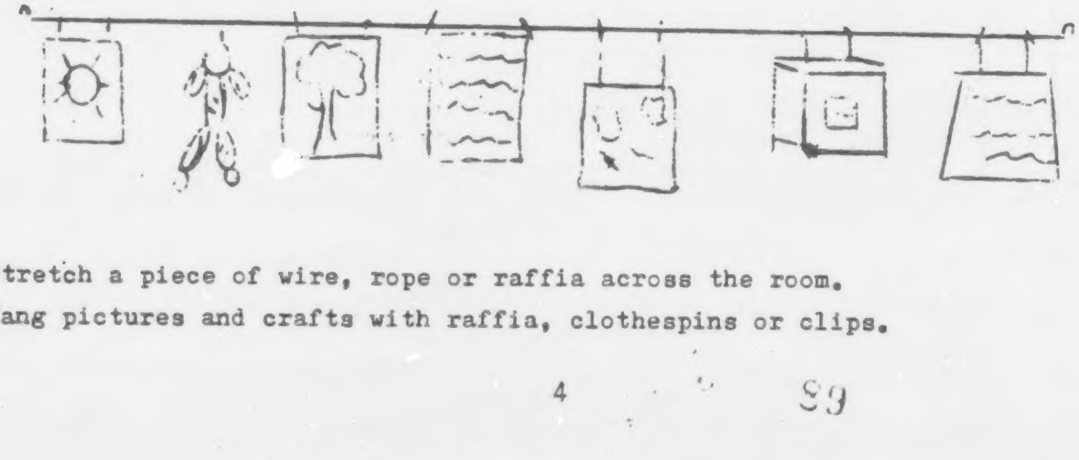
Bulletin boards are useful aids in display work, for pictures and student exhibits, etc. Be proud to serve the interests of your students by providing them with a bulletin board to display their own accomplishments and objects in which they are interested. Bulletin boards are as necessary to everyday teaching as the books that are read and discussed. Experts say that what children learn depends on our ability to control the various events that occur in the classroom. Is your classroom conditioned for this learning? What appears on the display areas of the classroom and the arrangement of these materials determine, to a high degree, what motivates children, what is learned, what standards of performance are established, and how interest is created and sustained. Alive, stimulating and well planned bulletin boards make a classroom a place where learning takes place.

Every teacher should feel it his responsibility to erect as many bulletin boards as is possible. Every bit of space that is not occupied with blackboards can be used for bulletin boards. Pictures should never be pasted directly on the walls of the classroom. See illustrations and suggestions that follow:









Stretch a piece of wire, rope or raffia across the room. Hang pictures and crafts with raffia, clothespins or clips.

READING

This bulletin board can feature words, sounds, adventure, places, conversations, books, pictures, puzzles, poems, riddles, jokes, and a great variety of experiences.

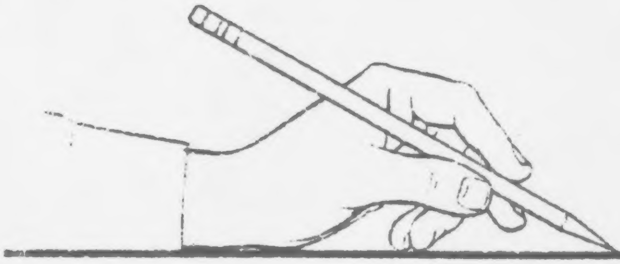
Your reading displays can:

- emphasize good reading habits
- keep a record of all the achievements of the class or group
- stimulate interest in a variety of books through reports, stories, pictures or sketches made by the children
- ask questions, introduce words, and interpret stories
- relate stories to music, art, science, history, and places of interest
- puzzles that match authors or characters to stories and books
- pictures and captions that go together or describe an event
- words organized into family groups by use of word patterns
- problems that ask the pupil to supply the missing words of phases
- questions that can be answered only by further reading
- settings against which children can dramatize their favorite stories
- help to understand more efficient ways to use the dictionary and make better use of the library and resources materials.

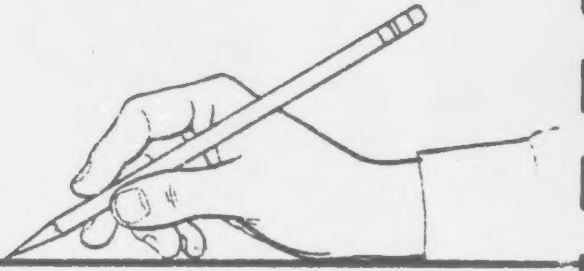
MANUSCRIPT PRINTING

Teachers in the primary grades should spend considerable time on teaching your students correct manuscript printing and cursive writing.

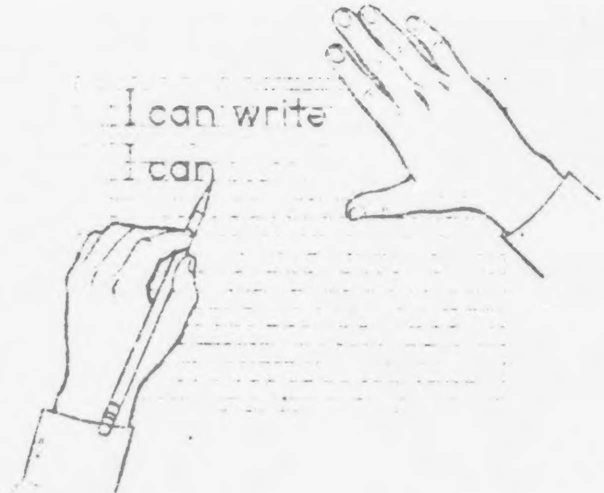
Include in this booklet is a smaple of both styles. Teach your students correct placement of each letter on ruled paper. Let them practice, practice, practice.



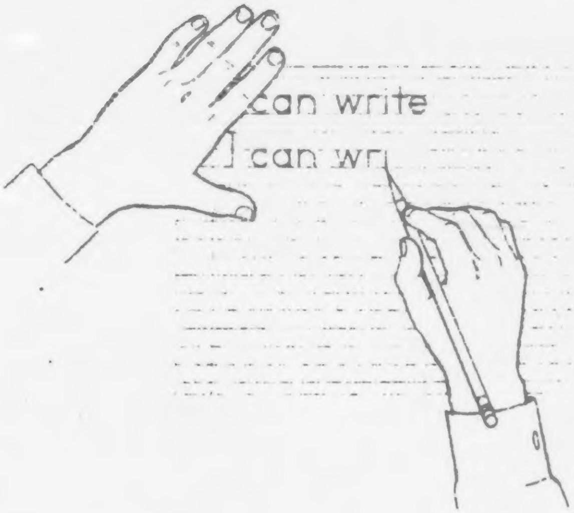
Left-handed writers



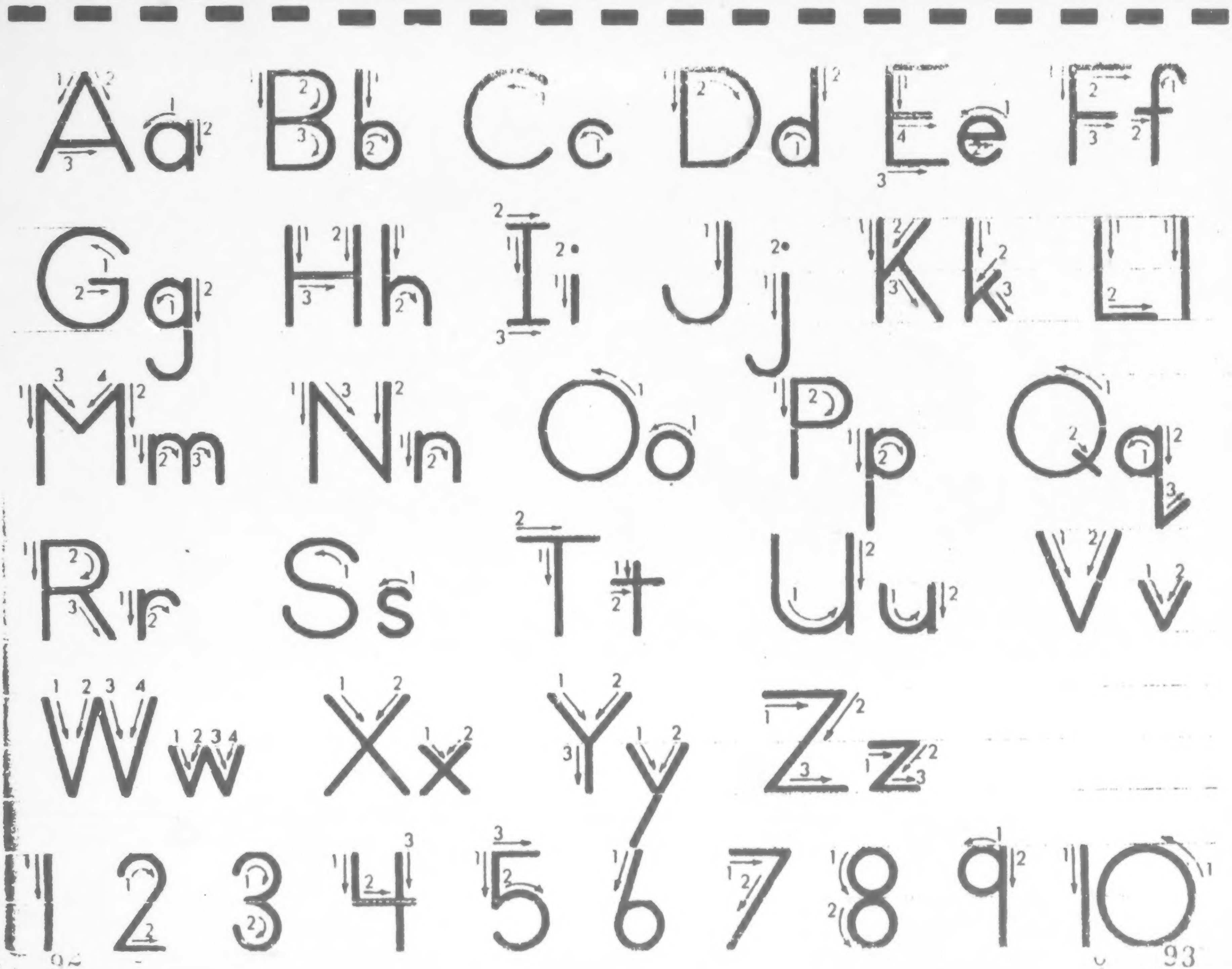
Right-handed writers


I can write
I can

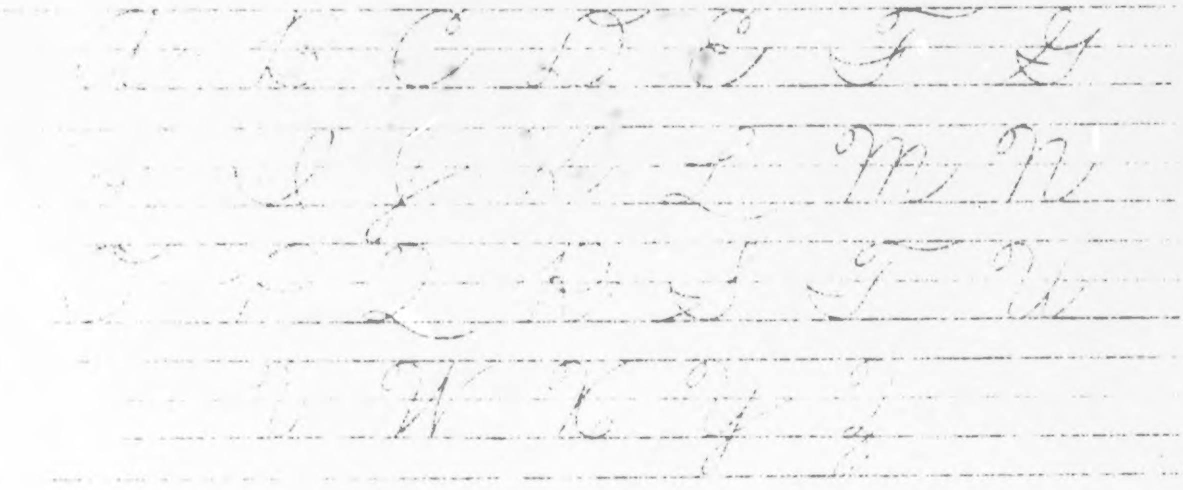
Left-handed writers

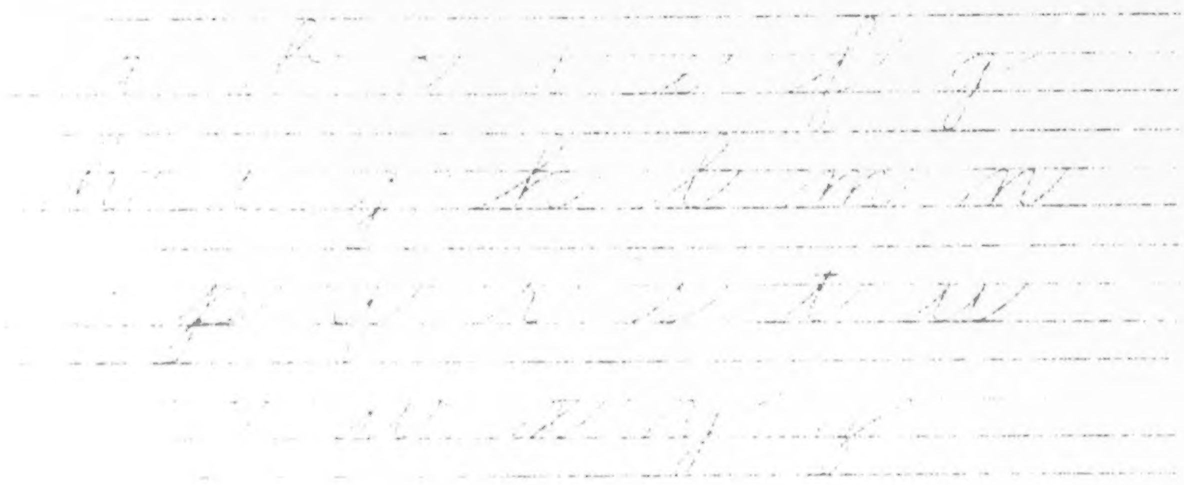

I can write
I can wr

Right-handed writers


Aa Bb Cc Dd Ee Ff
Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv
Ww Xx Yy Zz
1 2 3 4 5 6 7 8 9 10

Handwriting Models





BEST COPY AVAILABLE

HEALTH

Use your health display to:

* stress exercise, rest, diet
* explain disease and means to prevent it
* show proper care of teeth, hair and skin
* demonstrate methods of first aid
* methods of building a latrine
* how to purify water
* methods of collecting the rain
* interest children in careers of dresser, nurse, doctor, vitinarian

You can use your health display:

* pictures, slogans, and photo from magazines
* thermometers, bandages, crutches, combs, toothbrushes
* graphs, safety signs, posters, songs and poems
* rubber boots, sandles, raincoats, umbrellas
* soap, sponge, pans
* food packages, CARE food labels, (cereal and milk labels)

SOCIAL STUDIES

Bulletin boards prepared on social studies may feature people, places sorts, products processes, politices, patriots, communication, etc. These displays should have a definite purpose related to the work of the class. Everything should be correctly indentified by labels, captions, illustrations or text.

The following will add interest:

* present facts and unite basic understandings from the many pieces of information
* arouse curiosity and encourage further investigation
* show comparisons between then and now, here and there, time and distance.
* analyze products, inventions, people, forms of government.
* provide opportunities for pupils to creat and plan together.

WRITING AND SPELLING

Your bulletin board can creat a desire to write. It can provide materials that encourage ideas or topics to develop. Please give recognition to children's creative work.

Set up a writer's corner. It will need a collection of imaginative pictures or objects. Place a dictionary, pencil and writing tools in the corner. Permit children to go to this corner when their work is completed so that they can write creatively about the pictures or objects. Set up rules for your writing corner.

* spelling rules
* dictionary skills
* how to study spelling
* work structure and analysis
* meaning of words
* announce team awards
* display word puzzles
* display spelling games ehere children can match words
  with their meanings.

96

ARITHMETIC

The arithmetic bulletin board can help children to understand:

* comparisons of size and amount
* parts of things and wholes
* coins and money values
* number families
* methods of measurement
* the vocabulary of arithmetic
* how to read graphs
* the meaning of fractions
* number charts
* number picture cards
* objects for counting
* number games

……

Tone up your bulletin boards with a variety of materials that will add contrast. LOOK ABOUT! The world is full of rough, shiny, soft, spongy, geometric, matted, irregular, dull, irodescent, and colorful materials. Think twice before you pass up or discard unusual substances that have eye appeal.

Be sure you display students work.

SO START GATHERING

Rope - yarn - raffia - split bamboo - reed - seed pods - rice bags - Fanti scraps - egg cartons - wire - screening - nuts - steel wool - boxes - wax paper - sand paper - sand - gravel - moss - pipe cleaner - cellophane - plastic - styrofoam - aluminum foil - leather - unusual wood and bark - sawdust - cardboard - ribbons - buttons - shells - tile - seeds -

LET THE TEXTTURE OF THE ABOVE MATERIALS TICKLE YOUR IMAGINATION AS YOU WORK ON PROJECTS AND PLAN YOUR BULLETIN BOARDS!

ALPHABET TEMPLATES

It is a good idea to have letters cut from cardboard or heavy paper that will be available at any time for tracing or pinning to the bulletin board.

Twisted aluminum foil can be used to form letters. Fasten them to your exhibit with pins, thorns or reed.

Obtain some cotton yarn, string or raffia. Soak it in an extra thick mixture of warm cassava starch. Spread it out on wax paper or a large stone to dry. Try this for letters on the bulletin board, figures and borders.

Cut letters from the mesh (net like texture) from the inside of the bark from the coconut tree. Soak the mesh in a thick mixture of warm cassava starch. Dry before cutting letters and figures.

FLANNEL BOARD

To make a flannel board, secure a piece of board or two sides of a carton or crate. Tack flannel material or a blanket across one side. The other side can be painted as a chalkboard. Lace the two places of carton sides with raffia. In making a flannel board in this manner, it can easily be folded and stored to keep it clean. If flannel or a blanket is not available, cover the surface with thick cassava paste. While it is still wet and sticky pour sand on top. Let the sand and cassava mixture dry in the sun.

Cit pictures from magazines, shapes, numerals, children's sketches, etc. Paste these on cardboard. Cut again. Place a small piece of sandpaper _or cassava and sand) behind each figure. This will make it hold to the flannel board as it is displayed. If the board is made from cassava and sand, use small strips of flannel or blanket on the figures to be displayed.

SCREENS

Screens are also very useful for displaying materials. They add an air of living, a breath of fresh intellectual air to the classroom. Again, local and/or waste materials can be used to advantage at no cost whatever.

1. A strip of matting of the type available anywhere in Liberia will serve.
2. Thin planks to form a border are easily available. Old floor boards will do the job
3. Two sides of a cardboard or wooden carton will serve adequately. If four sides of a carton are used, cut them so as to join them together at the edges with punched holes through which string or raffia can be passed as in stitching. The screen may be painted or left plain.

Stand it upright on the floor or your desk and you are ready to display books, pictures, student work, charts, drawings, etc. A screen serves as an excellent room divider. It will help to cut down the noise in a

See Figure 1 on page 4.

NOTE ABOUT PASTE

Cassava paste to serve as an all purpose paste is quite simple to make. Peel, wash and grate four medium cassavas. Add cold water and strain through a piece of cloth. Pour grated material on a cloth and strain. Using the mixture remaining after straining, wrap in a cloth so as to make a roll that can be squeezed. The idea here is to wash out the starch and save it to use as a paste. The residual cassava chaff should be discarded. Let the starch stand in a container for one hour. Pour off liquid and scrape starch from the bottom of the container and set in the sun to dry. To make paste, place two cups of water into a kettle and boil. A handful of starch mixed with cold water to the consistency of fritter batter should be stirred constantly as boiling water is added. Thick or thin paste can be made depending upon the amount of hot water added. Paste can be stored in covered jars for everyday use in the classroom.

CHART HOLDER

Pieces of wrapping paper or used newspapers make excellent chart holders. Paste together four sheets of regular size newspaper with cassava paste. From the top, measure down three inches and two inches alternately. Draw lines across the paper so that pockets will be of uniform size. Fold up into pockets and fasten edges by pasting strips of paper along the edges, and fold edges on each side to the back. Lay flat to dry. The size of the chart holders will depend upon the size of materials to be inserted. For instance sentence strips will need wider pockets than will value charts, alphabet cards, pictures, spelling words, names for room helpers, etc.

Chapter 5

Using the Taxonomy of Educational Objectives

One of the most helpful guides in identifying and defining instructional objectives is the *Taxonomy of Educational Objectives*, developed by committees under the direction of Bloom (1956) and Krathwohl (1964). The taxonomy provides a classification of educational objectives that is analogous to the classification scheme used for plants and animals. It consists of a set of general and specific categories that encompass all possible learning outcomes that might be expected from instruction. The classification system was developed by psychologists, teachers, and test experts for use in curriculum development, teaching, and testing. Because the system is based on the assumption that learning outcomes can be best described in terms of changes in student behavior, it is especially useful to teachers who are attempting to state their instructional objectives in behavioral terms.

The taxonomy is divided into three parts: (1) the cognitive domain, (2) the affective domain, and (3) the psychomotor domain. The cognitive domain includes those objectives that emphasize intellectual outcomes, such as knowledge, understanding, and thinking skills. The affective domain includes those objectives that emphasize feeling and emotion, such as interests, attitudes, appreciation, and methods of adjustment. The psychomotor domain includes those objectives that emphasize motor skills, such as handwriting, typing, swimming, and operating machinery. A complete classification system was developed for the cognitive and affective domains by the Bloom and Krathwohl committees, but the preparation of the psychomotor domain was never completed. In recent years, however, at least two major classification systems for the psychomotor domain have been prepared, neither one by the original taxonomy developers. We shall present one of these psychomotor systems for illustrative purposes.

The Cognitive and Affective Domains

The cognitive and affective domains have the most highly developed and detailed classification systems. The categories and subcategories in each of these domains are arranged in hierarchical order, from the simplest behavioral outcomes to the most complex. The cognitive domain, for example, starts with simple knowledge outcomes and then proceeds through the increasingly complex levels of comprehension, application, analysis, synthesis, and evaluation. Each category is assumed to include the behavior at the lower levels. Thus comprehension includes the behavior at the knowledge level; application includes that at both the knowledge and comprehension levels, and so on. The affective domain follows a similar hierarchical pattern, ranging from the simple receiving of stimuli to the development of a value system that characterizes an individual's life style.

On the following pages, in Tables II and IV, are brief descriptions of each of the major categories in the cognitive and affective domains. Accompanying Tables (III and V) also present examples of objectives and illustrative behavioral terms (for stating the specific learning outcomes) for each of the categories. These examples should help clarify the meaning of each category and suggest types of learning outcomes to consider when identifying and defining instructional objectives. The illustrative objectives are not exhaustive, of course, but a review of them should stimulate you to think of a broader range of objectives for your particular area of instruction.

The list of behavioral terms for each taxonomy category is only a sample of some of the more relevant action verbs. It must also be kept in mind that frequently the same behavioral term may be appropriately used at several levels. The term *identifies*, for example, is appropriate in each of the following cases:

Knowledge:	Identifies the correct definition of the term.
Understanding:	Identifies examples of the principle.
Application:	Identifies proper grammer usage.
Analysis:	Identifies the parts of a sentence.

Despite this considerable overlap in the use of behavioral terms, there are some action verbs that are more directly relevant to one taxonomy category than to another. Those listed in the tables are merely suggestive; but they can assist in selecting the behavioral terms that most clearly convey the instructional intent of a given objective. More comprehensive lists of action verbs for stating specific learning are presented in Appendix B.

If you would like more elaborate and detailed treatments of the cognitive and affective domains, see the handbooks by Bloom (1956) and Krathwohl (1964) in the list of references in Appendix C. Both books provide extensive descriptions of the major and minor categories, with numerous illustrative objectives and test items.

The Psychomotor Domain

The psychomotor domain is concerned with motor skills. Although this domain includes some learning outcomes that are common to most subjects

TABLE II. Major Categories in the Cognitive Domain of the Taxonomy of Educational Objectives (Bloom, 1956)

Descriptions of the Major Categories in the Cognitive Domain
1. **Knowledge.** Knowledge is defined as the remembering of previously learned material. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Knowledge represents the lowest level of learning outcomes in the cognitive domain.
2. **Comprehension.** Comprehension is defined as the ability to grasp the meaning of material. This may be shown by translating material from one form to another (words to numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond the simple remembering of material, and represent the lowest level of understanding.
3. **Application.** Application refers to the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those under comprehension.
4. **Analysis.** Analysis refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material.
5. **Synthesis.** Synthesis refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operations (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of *new* patterns or structures.
6. **Evaluation.** Evaluation is concerned with the ability to judge the value of material (statement, novel, poem, research report) for a given purpose. The judgments are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance to the purpose) and the student may determine the criteria or be given them. Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all of the other categories, plus conscious value judgments based on clearly defined criteria.

TABLE III. Examples of General Instructional Objectives and Behavioral Terms for the Cognitive Domain of the Taxonomy

Illustrative General Instructional Objectives	*Illustrative Behavioral Terms for Stating Specific Learning Outcomes*
Knows common terms Knows specific facts Knows methods and procedures Knows basic concepts Knows principles	Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states
Understands facts and principles Interprets verbal material Interprets charts and graphs Translates verbal material to mathematical formulas Estimates future consequences implied in data Justifies methods and procedures	Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts, rewrites, summarizes
Applies concepts and principles to new situations Applies laws and theories to practical situations Solves mathematical problems Constructs charts and graphs Demonstrates correct usage of a method or procedure	Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses
Recognizes unstated assumptions Recognizes logical fallacies in reasoning Distinguishes between facts and inferences Evaluates the relevancy of data Analyzes the organizational structure of a work (art, music, writing)	Breaks down, diagrams, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, points out, relates, selects, separates, subdivides.
Writes a well organized theme Gives a well organized speech Writes a creative short story (or poem, or music) Proposes a plan for an experiment Integrates learning from different areas into a plan for solving a problem Formulates a new scheme for classifying objects (or events, or ideas)	Categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes
Judges the logical consistency of written material Judges the adequacy with which conclusions are supported by data Judges the value of a work (art, music, writing) by use of internal criteria Judges the value of a work (art, music, writing) by use of external standards of excellence	Appraises, compares, concludes, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, relates, summarizes, supports

TABLE IV. Major Categories in the Affective Domain of the Taxonomy of Educational Objectives (Krathwohl, 1964)

Descriptions of the Major Categories in the Affective Domain

1. **Receiving.** Receiving refers to the student's willingness to attend to particular phenomena or stimuli (classroom activities, textbook, music, etc.). From a teaching standpoint, it is concerned with getting, holding, and directing the student's attention. Learning outcomes in this area range from the simple awareness that a thing exists to selective attention on the part of the learner. Receiving represents the lowest level of learning outcomes in the affective domain.

2. **Responding.** Responding refers to active participation on the part of the student. At this level he not only attends to a particular phenomenon but also reacts to it in some way. Learning outcomes in this area may emphasize acquiescence in responding (reads assigned material), willingness to respond (voluntarily reads beyond assignment), or satisfaction in responding (reads for pleasure or enjoyment). The higher levels of this category include those instructional objectives that are commonly classified under "interests"; that is, those that stress the seeking out and enjoyment of particular activities.

3. **Valuing.** Valuing is concerned with the worth or value a student attaches to a particular object, phenomenon, or behavior. This ranges in degree from the more simple acceptance of a value (desires to improve group skills) to the more complex level of commitment (assumes responsibility for the effective functioning of the group). Valuing is based on the internalization of a set of specified values, but clues to these values are expressed in the student's overt behavior. Learning outcomes in this area are concerned with behavior that is consistent and stable enough to make the value clearly identifiable. Instructional objectives that are commonly classified under "attitudes" and "appreciation" would fall into this category.

4. **Organization.** Organization is concerned with bringing together different values, resolving conflicts between them, and beginning the building of an internally consistent value system. Thus the emphasis is on comparing, relating, and synthesizing values. Learning outcomes may be concerned with the conceptualization of a value (recognizes the responsibility of each individual for improving human relations) or with the organization of a value system (develops a vocational plan that satisfies his need for both economic security and social service). Instructional objectives relating to the development of a philosophy of life would fall into this category.

5. **Characterization by a Value or Value Complex.** At this level of the affective domain, the individual has a value system that has controlled his behavior for a sufficiently long time for him to have developed a characteristic "life style." Thus the behavior is pervasive, consistent, and predictable. Learning outcomes at this level cover a broad range of activities, but the major emphasis is on the fact that the behavior is typical or characteristic of the student. Instructional objectives that are concerned with the student's general patterns of adjustment (personal, social, emotional) would be appropriate here.

TABLE V. Examples of General Instructional Objectives and Behavioral Terms for the Affective Domain of the Taxonomy

Illustrative General Instructional Objectives	*Illustrative Behavioral Terms for Stating Specific Learning Outcomes*
Listens attentively Shows awareness of the importance of learning Shows sensitivity to human needs and social problems Accepts differences of race and culture Attends closely to the classroom activities	Asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits erect, replies, uses
Completes assigned homework Obeys school rules Participates in class discussion Completes laboratory work Volunteers for special tasks Shows interest in subject Enjoys helping others	Answers, assists, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes
Demonstrates belief in the democratic process Appreciates good literature (art or music) Appreciates the role of science (or other subjects) in everyday life Shows concern for the welfare of others Demonstrates problem-solving attitude Demonstrates commitment to social improvement	Completes, describes, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works
Recognizes the need for balance between freedom and responsibility in a democracy Recognizes the role of systematic planning in solving problems Accepts responsibility for his own behavior Understands and accepts his own strengths and limitations Formulates a life plan in harmony with his abilities, interests, and beliefs	Adheres, alters, arranges, combines, compares, completes, defends, explains, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes
Displays safety consciousness Demonstrates self-reliance in working independently Practices cooperation in group activities Uses objective approach in problem solving Demonstrates industry, punctuality and self-discipline Maintains good health habits	Acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, uses, verifies

TABLE VI. A Classification of Educational Objectives in the Psychomotor Domain (Simpson, 1972)

Description of the Major Categories in the Psychomotor Domain
1. **Perception.** The first level is concerned with the use of the sense organs to obtain cues that guide motor activity. This category ranges from sensory stimulation (awareness of a stimulus), through cue selection (selecting task-relevant cues), to translation (relating cue perception to action in a performance).
2. **Set.** Set refers to readiness to take a particular type of action. This category includes mental set (mental readiness to act), physical set (physical readiness to act), and emotional set (williness to act). Perception of cues serves as an important prerequisite for this level.
3. **Guided Response.** Guided response is concerned with the early stages in learning a complex skill. It includes imitation (repeating an act demonstrated by the instructor) and trial and error (using a multiple-response approach to identify an appropriate response). Adequacy of performance is judged by an instructor or by a suitable set of criteria.
4. **Mechanism.** Mechanism is concerned with performance acts where the learned responses have become habitual and the movements can be performed with some confidence and proficiency. Learning outcomes at this level are concerned with performance skills of various types, but the movement patterns are less complex than at the next higher level.
5. **Complex Overt Response.** Complex Overt Response is concerned with the skillful performance of motor acts that involve complex movement patterns. Proficiency is indicated by a quick, smooth, accurate performance, requiring a minimum of energy. This catergory includes resolution of uncertainty (performs without hesitation) and automatic performance (movements are made with ease and good muscle control). Learning outcomes at this level include highly coordinated motor activities.
6. **Adaptation.** Adaptation is concerned with skills that are so well developed that the individual can modify movement patterns to fit special requirements or to meet a problem situation.
7. **Origination.** Origination refers to the creating of new movement patterns to fit a particular situation or specific problem. Learning outcomes at this level emphasize creativity based upon highly developed skills.

TABLE VII. Examples of General Instructional Objectives and Behavioral Terms for the Psychomotor Domain

Illustrative General Instructional Objectives	*Illustrative Behavioral Terms for Stating Specific Learning Outcomes*
Recognizes malfunction by sound of machine Relates taste of food to need for seasoning Relates music to a particular dance step	Chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects, separates
Knows sequence of steps in vanishing wood Demonstrates proper bodily stance for batting a ball Shows desire to type efficiently	Begins, displays, explains, moves, proceeds, reacts, responds, shows, starts, volunteers
Performs a golf swing as demonstrated Applies first aid bandage as demonstrated Determines best sequence for preparing a meal	Assembles, builds, calibrates, constructs, dismantles, displays, dissects, fastens, fixes, grinds, heats, manipulates, measures, mends mixes, organizes, sketches, works
Writes smoothly and legibly Sets up laboratory equipment Operates a slide projector Demonstrates a simple dance step	(Same list as for Guided Response)
Operates a power saw skillfully Demonstrates correct form in swimming Demonstrates skill in driving an automobile Performs skillfully on the violin Repairs electronic equipment quickly and accurately	(Same list as for Guided Response)
Adjusts tennis play to counteract opponent's style Modifies swimming strokes to fit the roughness of the water	Adapts, alters, changes, rearranges, reorganizes, revises, varies
Creates a dance step Creates a musical composition Designs a new dress style	Arranges, combines, composes, constructs, creates, designs, originates

(writing, speaking, laboratory skills), it receives major emphasis in commercial subjects, health sciences, home economics, industrial education, physical education, art, and music. Performance skills play a prominent role in the instructional objectives in these areas.

The classification system for the psychomotor domain that is shown in Table VI is one developed by Simpson (1972). It was selected for use because the categories seem appropriate for classifying a wide variety of different type motor skills. The major caterories, ranging from perception (the lowest level) to origination (the highest level), have a hierarchical arrangement similar to that in the cognitive and affective domains. As with the other two domains, illustrative objectives and relevant behavioral terms are presented for each category (see Table VII), to further clarify the various behavioral levels and to suggest types of learning outcomes to consider.

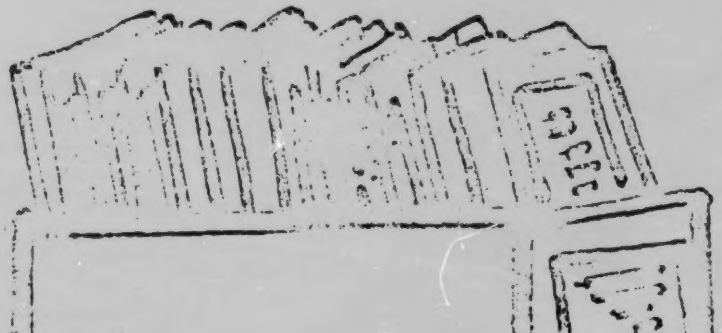
A taxonomy in the psychomotor domain has also been developed by Harrow (1972). Her taxonomy seems to be especially well adapted to the area of physical education, but may prove useful in other areas as well.

Instructional objectives in the psychomotor domain typically include concomitant cognitive and affective elements, but the demonstration of a motor skill is the dominant characteristic of the student's response. This overlapping of behavior from the different domains is, of course, not limited to performance skills. Learning outcomes in the cognitive area have some affective elements, and outcomes in the affective area have some coginative components. The three domains of the taxonomy provide a useful classification system, but they simply respresent particular emphases in stating objectives and not mutually exclusive divisions.

In summary, the *Taxonomy of Educational Objectives* provides a three-domain scheme (cognitive, affective, and psychomotor) for classifying all possible instructional objectives. Each domain is subdivided into a series of categories that are arranged in hierarchical order—from simple to complex. A review of these categories and the illustrative objectives and behavioral terms accompanying them (Tables II to VII) should aid in (1) identifying objectives for a particular instructional unit, (2) stating objectives at the proper level of generality, (3) defining objectives in the most relevant behavioral terms, (4) checking on the comprehensiveness of a list of objectives, and (5) communicating with others concerning the nature and level of learning outcomes included in a list of objectives.

As useful as the taxonomy may be, don't become a slave to the system of classification. Some objectives will include elements of all three taxonomy domains. Such objectives should not be discarded simply because they are difficult to classify. If revision will increase their usefulness, as well as their identification with one of the domains, then revision may be the answer. But if revision of the objectives distorts rather than clarifies their instructional intent, the original statements should be retained. In short, the taxonomy should serve as a guide—not as a master.

Learning Packages



INDIVIDUALIZING INSTRUCTION

A. Some techniques for Individualizing Instruction

1. TEAM TEACHING: Two or more teachers plan together ways and means to help a group of pupils.

2. INDIVIDUALIZED HELP: Pupils work problems that are included in a particular topic, then check them against answers provided by the teacher. The problems that are not worked correctly are tried again and if they are still lacking, the teacher takes immediate steps to determine and correct the pupils' needs. To be effective, the classroom must be used by and with individuals, pairs, or small groups of pupils.

3. INDIVIDUALIZED ASSIGNMENTS: After a lesson presentation or development for a large group, the teacher, already knowing his pupils' capabilities and interests, places the pupils in activities aimed at helping them to succeed in these assignments at their individual rates.

4. PROGRAMMED LESSONS: Carefully written lessons, in which each small step is developed and illustrated, if geared to a child's reading or math level, can help him to catch up when he has missed a small portion of his work.

5. PUPIL CONTRACTS: For practice of a designated skill, the pupil follows a pre-arranged sequence of steps. This can be a set of instructions about which assignments to do, or it can be a check sheet where he indicated what he agrees to do.

   (Note Pupil Contracts and/or Programmed Lessons must be matched to pupils' needs, so that they will not degenerate into "busy work". They can be extremely helpful when they are well-planned.)

6. SPECIAL TUTORING: Done as pupil-by-pupil or pupil-by-adult, this technique is highly individualized. Sometimes progress is slow and barely noticeable, but the personal touch can help a child who has an emotional problem or some other hindrance for working with other children.

7. LEARNING STATIONS: Some laboratory classrooms are set up with special "Centers" or "Stations" for specific mathematical experiences. These places for Basic Facts, or Problems to Try, or Strengthening Computational Skills, or Games to Test skill, or many other mathematical experiences can go a long way in motivation, stabilizing, even evaluating pupil progress. Such a classroom as this must be well-stocked and well-planned for contunuous experiences at many levels.

INDIVIDUALIZED INSTRUCTION

DEFINITION

Individualized instuction is a process of gearing the instructional program to meet the needs, interest, and abilities of individual pupils. This instruction may be accomplished on a one-to-one relationship, in non permanent groups in varying sizes or through the involvement of pupils in independent study.

Individualized instruction is a broad approach in helping children to learn. It sets up flexible class environment, a creative learning climate, and provides opportunities for self selection, self direction, self pacing, and self evaluation on the part of the learner.

APPROACHES TO INDIVIDUALIZED INSTRUCTION

Identification of the needs, interests, and potential of pupils to be involved in the program through observations, formal and informal tests, checklists, interest finders, sociograms, etc.

A broad knowledge of concepts, understandings, and skills to be developed, reinforced, and enriched.

Involvement of resource teachers, specialists, consultants, mobilization team member, librarians, and counselors in planning the individualized instructional program.

Use a wide variety of materials and equipment:

Books
Workbooks
Magazines
Newspapers
Pictures
Illustrations
Cartoons
Photos
Encyclopedia
Almanacs
Yearbooks
Charts
Graphs
Globes
Maps
Slides
Projectors
Viewflex
Listening centers
Tapes
Records
Radio
Television
Games
Pocket charts
Transparencies
Sara wrap
Portable chalk board

Setting up a procedure for operating and evaluating the individualized instructional program.

Establishing techniques and instruments for keeping records and measuring pupils' progress:

Checklists
Contracts
Conferences
Sign up sheets
Programmed materials
Teacher-kept records
Child-kept records

8. LEARNING PACKAGES: This technique is complete within itself for diagnostic, prescriptive, and evaluative assistance.

B. Common elements in all of these Techniques

1. The learner is freed from group pacing at some point to move at his own rate and/or interest.
2. The learner may use a diversity of learning media.
3. The learner will have one-to-one instructional interaction of varying periods of time with his teacher, a peer-tutor, or some other educational aide.

SUMMARY STATEMENT

All of us have used some form of individualizing instruction during our teaching career. For an instructional program to be effective, a combination of these techniques must be used.

LEARNING PACKAGES

I. An Overview

A. A learning package is a complete, organized, self-instructional unit of resources for one specific concept or skill (or a related group of skills)

B. A complete learning package consists of:
1. Clear indication of its subject
2. A statement of its purpose
3. A pre-test using criterion measures
4. Instructions and materials for small steps or progress
5. A post-test using criterion measures

(Note: Any package which contains only items 1 & 4 of the above can be an instructional packet)

C. A learning package should accomplish the following:
1. Tell the learner what he is to do and why
2. Let him do it with reasonable freedom of time and method
3. Tell him if he did it successfully

D. Who benefits from the learning packages?

1. Learning packages are for the learners who are at a stage of development in which they can help themselves. Every learner needs and benefits from this kind of independence if it is given to him wisely. It helps him to know himself as well as to help himself.

2. Learning packages also benefit the teacher by allowing him time to design each experience to fit the individual (or small groups of) learners. Also, the teacher can thus apportion his time and attention to the learners who need him most.

II. Procedures for Producing and Using A Learning Package

A. Select an objective from the Minimum Achievement Skills.

B. Write a post-test, which may serve as the pre-test, for diagnosis.

C. Write an outline of a sequence of instructions which provides for:
   1. Small steps of learning
   2. Motivating prompts or cues
   3. Practice and knowledge of results

D. Prepare materials with sufficient directions so that the learner can work through the package without additional help from you.

E. Administer the package to a few learners. If the objectives are not achieved, revise the package.

F. Talking with learners will help locate inadequacies in the package. Notes should be kept regarding development of the package and the history of the tryout, including student comments or other reasons for revision.

III. Keeping Records

A. Individual student folder
   1. Guide sheets or contract
   2. Remedial or drill work completed
   3. Chapters in textbook, if used, completed
   4. Related outside work

B. Teacher kept folder for each student
   1. Teacher-constructed tests completed by the student that show his weak or strong points.
   2. Samples of the student's work
   3. Notes taken during conferences with student
   4. Notes taken while observing student
   5. Reports of conferences with parents.
   6. Copies of reports issued to the parents
   7. Notes describing any special talents or p hysical disabilities (emotional or mental)

(Note: Each student should know what information is kept about him.)

IV. Summary Statement

A. On learning packages
   1. They are not the "answer" alone or within themselves as a technique in individualizing instruction.
   2. They do not take the place of developmental teaching by the teacher.
   3. All children are not at the level of independent, self-controlled work to benefit from this technique.
   4. Learning packages can be used for enrichment, as well as remedial purposes.

B. On individualizing instruction

1. The best and most effective instructional program may use a combination of techniques for individualizing instruction.
2. Since "variety is the spice of life", an effective program can be devised which will be both constructive and stimulating for both teacher and learner.

****

Guidelines for Constructing and Using Learning Packages

1. Assess the pupil's home background and interests.
2. Administer standardized and informal diagnostic tests.
3. Analyze the test results and record the data.
4. Select on the basis of the diagnoistic test information, those skill areas which need to be developed.
5. Write the learning objective, stating the desired measure of accuracy.
6. Construct the pre-test, and post-test.
7. Administer the pre-test and analyze the results.
8. Construct alternate learning paths or strategies to accomplish the learning objectives.
9. Determine the media for presentation.
10. Write the prescription.
11. Prepare two folders, one for the teacher andone for the child.
12. Have the child work through the sequence.
13. Administer the post-test to determine mastery of the objective.
14. Analyze post-test results.
15. Revise the learning system to either re-test or move on to the next skill level.

PREPARING BEHAVIROAL OBJECTIVES

When writing a behaviroal objective the object is to write objectives that communicate; therefore the following steps should be kept in mind:

First, indentify the terminal behavior by name; you can specify the kind of behavior that will be accepted as evidence that the learner has achieved the objectives.

Second, try to define the desired behavior further by describing the important conditions under which the behavior will be expected to occur.

Third, specify the criteria of aceptable performance by describing how well the learner must perform to be considered acceptable.

Three of the terms that will be used bear defining: Behavior........ refers to any visible activity displayed by a learner (student). Terminal behavior..............refers to the behavior you would like your learner to be able to demonstrate at the time your influence over him ends. Criterion.................is a standard or test by which terminal behavior is evaluated.

An objective is an intent communicated by a statement describing a proposed change in a learner-a statement of what the learner is to be like when he has successfully completed a learning experience. It is a description of a pattern of behavior (performance) we want the learner to be able to demonstrate.

A course description tells you something about the content and procedures of a course; a course objective describes a desired outcome of a course. Whereas an objective tells what the learner is to be like as a result of some learning experiences, the courses description tells only what the course is about.

A meaningfully stated objective, then, is one that succeeds in communicating your intent; the best statement is the one that excludes the greatest number of possible alternatives to your goal. Unfortunately, there are many "loaded" words, words open to a wide range of interpretation. To the extent that you use ONLY such words, you leave yourself open to disinterpretation.

Consider the following examples of words in this light:

Words open to many

to know

to understand

to really understand

to appreciate

to fully appreciate

to grasp the significance of

to enjoy

to believe

to have faith in

Words open to fewer interpretation

to write

to recite

to identify

to differentite

to solve

to construct

to list

to compare

to contrast

How can you write objectives that will describe the desired behavior of the learner:

First: identify the terminal behavior by name; you can specify the kind of behavior that will be accepted as evidence that the learner has achieved the objective.

Second: try to define the desired behavior further by describing the important conditions under which the behavior will be expected to occur.

Third: specify the criteria of acceptable performance by describing how well the learner must perform to be considered acceptable.

Use the following statements to test the clarity and completeness of your objectives:

1. Does the statement describe what the learner will be doing when he is demonstrating that he has reached the objective?
2. Does the statement describe the important conditions (given or restrictions, or both) under which the learner will be expected to demonstrate his competence?
3. Does the statement indicate how the learner will be evaluated? Does it describe at least the lower limit of acceptable performance?

INSTRUCTIONAL OBJECTIVES

Place an X before each objective which is properly stated.

___ The student will grasp the significance of the Treaty of Versailles.

___ The student has an attitude favorable to English grammar indicated by his response to a questionnaire.

___ The student will know 6 verbs.

___ The student will learn the names of the common tools in woodshop.

___ The teacher will list 3 major causes of the Civil War.

___ The student will know the important battles of World War 1.

___ The student will prefer cooking to sewing.

___ The student will correctly thread a sewing machine.

___ The student will pay attention as the teacher demonstrates the use of a drill.

___ The student will develop a sense of the cultural unity of man.

___ The student will list and describe the themes of 4 of Shelley's poems.

___ The child will develop an interest in leisure sports.

___ The student will give indications of a desire to learn more history.by volunteering to present an extra oral report.

___ The teacher will describe with understanding five concepts treated in the text.

___ The student will correctly solve 10 story problems.

___ The student will enjoy a record, "The Three Pigs".

___ The student will become familiar with the 4 kinds of sentences.

___ The student will construct a model of the earth.

___ The student will know the letters of the alphabet.

___ The student will contrast 2 objects.

___ The student will learn the rules of good safety.

___ The student will list 10 rules of good conduct.

CLASSROOM MANAGEMENT

WHAT IS IT?

1. Systematic organization of the classroom
2. Specified outcomes, procedures, and evaluation

HOW DOES IT WORK?

1. Specification of outcomes
2. Specification of procedures to achieve outcomes
3. Specification of evaluation techniques to measure success and failure

HOW DO I KEEP THE SYSTEM GOING?

1. Record goals on some regular basis
2. Revise individual and group goals
3. Institute a graph or progress chart for teacher and student

HOW DO I EVALUATE?

Measure real outcomes by expected outcomes

WHAT IS THE TEACHER'S ROLE?

1. Attend to individual and group progress records
2. Supply necessary feedback and instruction
3. Establish new "for fun" or enrichment group activities

WHEN WILL A CLASSROOM MANAGEMENT SYSTEM NOT WORK?

1. If there are no specified goals
2. If there is no record keeping system
3. If there is no evaluation procedures
4. If there is no teacher-to-student feedback

LEVEL 4 Sample Learning Package

I. *A. A. P. Objective: He can alphabetize words of newly acquired vocabulary by first, second, and third letters.

II. Behavioral Objectives:

A. Prime Behavioral Objective - Given a list of 10 newly acquired vocabulary words, students will alphabetize them by the first, second, and third letters with 100% accuracy.

B. Building-Block Behavioral Objectives

1. Given a list of 10 new vocabulary words, students will alphabetize them by the first letter with 100% accuracy.
2. Given a list of 10 new vocabulary words, students will alphabetize them by the first, and second letters with 100% accuracy.

III. Sample Pre-Test

A. Below are 20 words from our new unit in Geography. Look at them carefully, then put them in alphabetical order. Use the numerals 1-20 in the blocks.

________ cotton

________ Mississippi

________ plantation

________ gulf

________ floods

________ Jacksonville

________ rice

________everglades

________basin

________Flordia

________tobacco

________Montgomery

________delta

________Alabama

---

* "Sequential Inventory of Reading Skills" K-6 70-71 Gr. 4 Study-Reading p. 14 #1

Sample Pre-Test continued.

________ Charlotte ________ peanuts

________ Reconstruction ________ Mobile

________ Georgia ________ Atlanta

On this test there is an opportunity to demonstrate skill in alphabetizing using the first, second, and third letters.

B. Below are 5 rows across of three words. Use the numerals 1, 2, and 3 to put each row in alphabetical order.

________ basin ________ rice ________ cotton

________ floods ________ gulf ________ peanuts

________ sugar ________ South Carolina ________ citrus

________ plantation ________ plains ________ peninsula

________ Montgomery ________ Mississippi ________ Mobile

The results of the pre-test should help the teacher determine which children need work mastering the Building-Block Objectives and/or the Prime Behavioral Objectives.

IV. Learning Paths:

1. Teacher led presentations using pictures, picture-word cards, word cards, etc.

2. Picture dictionary for levels indicated.

3. Practice Sheets for levels indicated.

4. Practice exercises for levels indicated, in Phonics We Use books D, C, E.

5. Match - 0 game and other games available.

V. Post - Test for Objectives and Directions

A. Building-Block Objective (A)
Put these words in alphabetical order by putting the numerals 1-5 in the correct blanks.

________ floods

________ Atlanta

________ delta

________ cotton

________ basin

B. Building-Block Objective (B)
Put these words in alphabetical order using the first two letters. The words are in pairs. Use the numerals 1 and 2 to show order.

a.__________ cotton __________ citrus

b.__________ sugar __________ South Carolina

c.__________ Reconstruction __________ rice

d.__________ peanuts __________ Planation

When 100% accuracy is attained, move to Prime Objective

C. Prime Objective
Below are 10 new geography words. Put them in alphabetical order. Use the blanks given:

Word List: plains, Mobile, Alabama, plantation, Albany, Montgomery, Flordia, Baton Rouge, basin, flood

1.________ 2.________ 3.________

4.________ 5.________ 6.________

7.________ 8.________ 9.________

10.________

5. What are some words or expressions used in Liberian English that seem to have no counterpart in American English (e.g., words or expressions concerning items or situations that one does not encounter in the U.S.)?
6. What differences do you notice in the way English is spoken by various groups of Liberians (i.e., of various educational, ethnic, and socio-economic levels) when speaking to each other, to someone from a different social level, and to foreigners?
7. What are the reactions of these various groups of Liberians to the use of Liberian English by foreigners (especially PCVs)?

A SMALL COLLECTION OF EXPRESSIONS FROM LIBERIAN SPEECH

2nd Edition

compiled by Tom Wheeler

printed by
University Printing Services
Eastern New Mexico University
Portales, New Mexico
December, 1979
Reprinted, December, 1980

Preface

This collection is by no means definitive nor entirely original. Much of this effort is based on Warren d'Azevedo's Some Terms from Liberian Speech, published in 1967 by the U.S. Peace Corps in Liberia. During my own nearly twelve years in Liberia I had continuous opportunities to hear English spoken by Liberians from all social levels and in greatly varied contexts. From this experience I draw the examples and derive any nuances described herein. In many instances I have preserved Dr. d'Azevedo's scholarly definitions intact. These are marked (d'A.).

A word about any implicit sex bias: Finding myself privy more to the conversations of men than women when references were being made to the opposite sex, I have quite naturally collected a preponderance of expressions reflecting men's attitudes toward women. Although sensitive to the need for an equal treatment of women's attitudes toward men, I have had far fewer opportunities to be present in situations where such attitudes would reveal themselves. Rather than fabricate upon conjecture alone, I have preferred to cite references that are within the realm of my own experience. Perhaps someone could provide the necessary balance who has had complementary experiences in listening to the speech of, and interacting with, women as they talk about men.

This collection makes no claims at being complete (indeed, Dr. d'Azevedo's now out-of-print booklet cited a greater number of words, many of which are more anthropological in nature than the bulk of expressions appearing here). The purpose of this glossary is specifically to acquaint Peace Corps Volunteers being trained for service in Liberia with some of the words and expressions they will be hearing. What is perhaps more important is the development of an awareness of the great diversity of English spoken in Liberia and a sensitivity to what particular registers or levels are appropriate in which contexts. To this end there is, following the glossary, a guide for focusing such observations.

Recognition must go to Prof. Warren d'Azevedo whose earlier work has provided the foundation for this revision. Likewise, I wish to express a sense of profound gratitude to Fr. Tom Mercer of Voinjama, whose lengthy service in Liberia as an Episcopal priest and English teacher, substantiated by professional linguistic training, makes him perhaps the most acknowledged authority on the linguistics of Liberian English. Finally, I am unquestionably indebted to my many Liberian friends from whose conversations these examples have been garnered—not in the sense of exploitation but rather one of sharing. An especial thanks goes to Alfred Larmouth, Jacob Karnga, and other members of the Liberian language training staff during the agriculture/rural development Peace Corps training program of the summer of 1979, who made specific comments and suggestions about the words, expressions, and examples contained in this particular revision. Their eagerness to assist increases the validity of such a document. I regret any errors that are misperceptions on my part.

To those Volunteers who may use this collection, then, I hope it provides some foundation for your own continued learning as you encounter the rich diversity of experience and proud heritage in Liberia.

Tom Wheeler
Portales, NM
12 December 1979

Communications in Liberia (English)—A Guide to Observing

English is the most widely spoken language in the world. Although there exist standards of written and spoken English, most people communicate with each other using colloquial forms not always considered standard. Colloquial English is influenced by various linguistic forces, including other languages that are spoken in the area. As a result, speakers of English who are from different places often have to pay careful attention to each other's pronunciation, inflection, vocabulary, and idiomatic expressions if they want to communicate effectively with each other.

In addition to listening carefully to the sounds of each other's English, it is also necessary to pay attention to gestures and other nonverbal cues that also affect the meaning of messages being sent back and forth between speakers.

The following questions should help you focus on some of the differences between Liberian and American English and thus help increase your understanding of English as many people speak and communicate with it in Liberia.

1. How do people greet each other? (What do they say and do?)
2. What expressions do people use when:
   a. getting attention
   b. giving directions
   c. making requests for themselves
   d. making requests for others
   e. apologizing
   f. expressing sympathy
   g. giving approval
   h. expressing disapproval or dissatisfaction
   i. expressing indifference
   j. gossiping about others
   k. abusing/maligning a third party not present
3. What are some expressions that are common to both Liberian and American English? Do they mean the same thing in both?
4. What are some of the features of the way Liberian English is pronounced that makes it different from American English?

BEST COPY AVAILABLE

white thing	a traditional gift or token of respect and good intentions (d'A.)
witch	sorceror; sorcery. This English term is used very loosely to include all those persons and practices which involve magic with evil intent. But it is used by many tribal peoples with specific reference to equivalent terms in their own languages. The concept of "witch," to most persons in Liberia, connotes a special kind of evil spirit with which certain people are born, or which may enter a person and use him or her as a host. Such a spirit controls its host and forces him or her to do destructive things, such as bringing sickness to others, ruining crops, eating unborn babies and human souls. The witch spirit may leave its host while he/she sleeps and wander about doing terrible deeds. To say someone is a witch really means that he or she "possesses" or "has" a witch. To "make witch" means that one is using the services or powers of a witch to do harm to others. To "have witch on one" means to be the target of a witch's evil intent. To "catch witch" is to discover and trap a witch through counter-magic. (d'A.)
witness (wisneh)	see. "You witness the kung fu pictures?" (Did you see the show?)
yah?	Did you hear me? (Do you understand what I've just told you."
yana boy	street peddlar. A petty trader who carries his wares about the town.
your	also means you (plural); y'all. "What time your came?" (When did y'all get here?) "Your must clean the place before leaving."
zute/zoot	to dress up. "On Christmas and the 26th [of July], you can see everybody zooting." (Everybody puts on his/her best and walks around town.

BEST COPY AVAILABLE

A SMALL COLLECTION OF EXPRESSIONS FROM LIBERIAN SPEECH

compiled by Tom Wheeler (December 1979)

abuse	to malign with offensive language. The word means much the same as in American usage but is probably used with greater frequency in Liberia. "The man abuse my ma!" (He said something uncomplimentary about her—a grievous insult in Liberia.) "Teacher, Boima abuse me-o!" (Perhaps Boima called him/her a damn fool.)
again	1) after all. "You not going again?" (So you decided not to go after all.) It does not mean going for a second time (which, if it's for food or drink, would be, "You going for round?"). 2) now; this time. "What happen again?" (Now what's the matter?) 3) any more. "I can't do that one again." (I don't do that any more.)
ass-trick	nonsense, foolishness. "That man good-good job spoil on ass-trick." (He lost a very good job for some foolish reason.)
ba	friend. "I say ba, what time you going in town?"
baby ma	a woman who has a young baby. Can also be used as a form of address. "Take time with that girl—that baby ma-o!" (Stop flirting with her; she has a young (nursing) baby and therefore is not interested in making love right now—or shouldn't be!) "Sarah Ma, yeah the food what my ma sent you." (Mother of Sarah, here's the food my mother has sent to you.)
bad kinda way	in the worst way. "I want wisneh the picture bad kinda way, but no money, Jack!" (I really want to see that movie, but no way, José!)
balance	the remaining portion "These pekins will eat the balance rice." (The small children will eat what's left over.)
beat up	of poor or disappointing quality. "The people party was too beat up." (A flop)
beg	to solicit or plead. "I beg you!" (Pretty please.)
behold	alas. "I thought we fini' fixing the palaver, behold the woman still vex with me!" (I thought we had settled our differences; to my surprise, she's still made at me!)
bobo	a deaf mute
boney	a small, common fish that has a lot of bones but is otherwise delicious. The dried (smoked) boney is used to flavor stews and sauces.
book	1) to know book means to be formally educated (regardless of the level of education). "That sabby woman; she know plenty book." (That's a very intelligent woman; she's well-educated.) 2) as a verb, to catch, write up, or penalize somebody for an offense. "The officer book the taxi driver—no license!" "The principal book the children for disturbing the program."
born	1) to give birth to. "Hawah born a boy child." 2) true genitor. "He my born pa." (He's my real father, not my step-father or guardian (who would also be addressed as "pa").

boron	a small cheat sheet, concealed in one's pocket, up a sleeve, or under a thigh. Teacher to students: "I know none of your can pass except for boron." (Cheating is the only way most of you will make it through this course.)
bra	brother, friend. "I say, bra, you hear about the new picture?" (My good friend, have you heard about the new movie in town?)
bug-a-bug	termites
bullshit	in common use and not considered particularly offensive. "Let me go bullshit those girls small." (impress them with my ways) "That so-so bullshit the man talking." (Don't believe a word he says.)
business	matters, concerns. "That your business!" (A common response of indignation when a request has been refused.) "That not small boy-o! He know woman business." (He's not a child; he has slept with a woman before.)
butter pear	avocado
can/can't	to do something habitually. "My pa can make farm." (My father is a farmer.) "I can't eat hog-o!" (I don't eat pork. A religious taboo among Moslems.) Can and can't are likely to be pronounced alike except for an important difference in tone: "I càn do it." (low tone on can) = I usually do it. "I cán do it." (high tone on can) = I usually don't do it.
cane juice	locally-made rum
carry	to take along. "Carry this letter to your pa." (Take this to your father.) "When you go to the States, you must carry me-o!"
Cartoon	a box or carton
chakla	confusion; to cause confusion; to be mixed up. "The man full of chakla." (He likes to cause trouble.) "Everything here chakla." (Things are not going according to plan.)
charge	1) to fill up. "Charge my glass." (Fill 'er up!) 2) to search. "The police charge(d) the rogue's pockets." (looking for something stolen)
charged	intoxicated. "The man charged in the head."
children	also refers to adolescents and young men and women who are in school (including senior high school and college); usually used to refer to one's schoolmates. "To get those children to clean up after the party ain't easy-o!" (comments made by the party chair about her 12th grade classmates.)

---

them	and all the rest of the people. "Carry these bananas to your ma them." (Take them to your mother and the other people in her house.)
tie one's face	to frown or scowl. "Pekin, how you tie your face so?" (Did somebody make you mad?)
tight	of small but wiry build. "The man you talking about, he tight?" (Is the man you're describing to me rather short with lean muscles?)
toilet	(v) to defecate. "Ma, your baby now toilet-o!" (He/she has just soiled the diaper.) (n) feces. "Mary, come move the toilet from here." (Come clean up this mess your baby brother just made on the floor.) restroom. "Teacher, I want go in the toilet."
topogi	a potash or soda obtained from ashes of certain plants or from mineral deposits. It is often used when sea salt is not available, but provides a flavor accent of its own, which is relished particularly among the Loma people. (d'A.)
torch	flashlight
tote	to carry (a load)
use	to take advantage of. "The teacher really use(d) those children." (He probably took advantage of his st to berate the students, or to make the do a lot of admin. work.)
vexed	annoyed, angry (very common word)
walkabout	stroll; promenade. "What place you going?" "I go walkabout." (I'm just going to stroll around the town.) Can also suggest looking for company of the opposite sex. "Let's walkabout to Hawa's." (Let's go visit her.)
wa' ple?	what place? = where. "Wa' ple you stay?" (Where do you live?)
waste	to throw away or accidentally spill. "Oh! How you wasted water on me so?" (You splashed me when you threw out the water.) "The rice waste-o!, my people!" (Somebody knocked it (the pot) over.)
wata police	prostitute
waterside	waterfront. That part of a village or town which is along the water—usually a marketplace, quarter, or boat landing.
wa' tine?	what time = when. "Wa' tine you came? (When did you arrive?)
wa' ting?	what thing = what. "Wa' ting you talking?" (What are you talking about?)
what to do?	that's life; c'est la vie. Nothing much you can do about it. Often said with a gesture of clapping the hands once and then opening them, palms up.

BEST COPY AVAILABLE

speed	self-confidence; assertive flattery. "The way he got that job—the man got speed-o!" (He sweet-talked his way into it.) "If you want that girl, you must run your speed-o!"
spend	to pass the time. "How you spend the night?" (How did you sleep?) "I going to spend time to my auntie them." (I'm going to visit my aunt and her family for a few days.) to spend money. "That man can spend-o!" (He's not stingy.)
spoiled	broken. "My watch spoil-o!" (It's stopped for good.) "How you manage to spoil the people car?" (What did you do to wreck their car?)
spy	to catch a glimpse of. "I spy her in the store." (I saw her in the store—but didn't get a chance to speak to her.) to cheat. "Teacher, Joseph want spy my paper-o!"
stick	refers not only to small, slender pieces of wood but can also indicate a log several inches in diameter
story	fabrication, lie. "That story, yah!" (I don't believe you.) Not as accusatory or inflammatory as, "That lie, yah!" or "You lie!"
straight	right away. "When he spy the cat eating the fish, he chunk it straight!" (As soon as he saw the cat eating the fish (that they may have been drying in the kitchen), he hit it with a rock.)
stranger	guest
stranger father	host
sweet	delicious. "Gbasa jamba sweet-o!"
suck one's teeth	to make a hissing sound by sucking against the teeth. A serious insult.
take time	watch out; take it easy; be careful. "Take time for the dirty water." (Watch out for that stagnant drain water.) "Take time with the people daughter." (Don't get her in trouble.)
thank you	in addition to expressing appreciation for a gift or favor done, it can also mean I'm happy for you; that's fine; congratulations; your're welcome; I'm glad; etc. "Thank you for your new lappa." (What a pretty lappa you have! (does not mean that the lappa has been given to the one saying thanks).) "Thank you for your new baby." (Congratulations.) I hear you passed your examinations . . . Thank you!"
there	"I not there-o!" (I was am not involved in any
too; too much	very. "My friend too good to me-o!" (He has done well for me.) "That man fat too much!" (He's huge.)
time	"Time he was to the country, . . ." (When he was living up-country, ...) "Once upon a time . . ." (Response: "Time!") The way tales begin in Liberia.

chunk	to throw at. "You see the children chunking the keke?" (Look at those kids throwing rocks at that emaciated dog!) "When we fini' with this work you must chunk us-o!" (You'd better give us something good.)
citizen	A name jokingly given to dogs, especially when they sit in the road, unconcerned by traffic.
civilized	also called kwi. Refers essentially to religion (usually Christianity) and education (usually western style, that is, European or American, which would also include a person who has graduated from high school or college in Liberia). The terms "civilized" and "not civilized" are used extensively in Liberia and imply a practical cultural distinction rather than an invidious one. (d'A.)
cold water	a gift to sooth ruffled feelings, to appease anger, or to ask forgiveness. "Now that we fini' talking the palaver, where my cold water?" (Now that I have agreed to a compromise (or have helped you people reach an agreement), show your appreciation.)
come	"I coming." (I'm going but will be right back.) "I coming to go." (I'm about to leave now.) "Go come." (Come back later, or Hurry back.) "I come to you-o!" (I'm here to ask you for a favor.)
come let's each rice!	a customary invitation to join in eating. Liberiank will always extend this invitation regardless of the size of the group or the quantity of food. If one has already eaten or otherwise does not wish to partake, he or she says, "Thank you" which means "no thank you." Or, in order not to offend those who extended the invitation, the invited person may eat one token spoonful of the food and then say "thank you."
congo	A term originally applied to "recaptured" Africans--those slaves rescued from slaveships during the period of the British and American blockade of the West African coast early in the 19th century, and released at Freetown or Monrovia. In that many of these recaptured people were from the Congo region, this word became a general reference to such persons, who were destitute, defranchised, and helpless. During the early years of the Liberian colony, large numbers of refugees of this kind constituted a serious problem to the government. For the most part, they developed into a class of uneducated laborers and tenant farmers, looked down upon by colonists and high-status tribesmen alike. Except in some rural areas, their descendants today are indistinguishable from other members of the coastal urban population, and many leading Liberian citizens have "Congo" family backgrounds. In many sections of the country the term still has derogatory implications--both as an epithet and as a snobbish class distinction. (d'A.)
country	tribal or traditional, referring to native or indigenous customs. "country doctor" (a herbalist or bonesetter) "That big shot got three country wives." (Besides his 'civilized' wife he has some other wives for whom he may have paid dowries in the traditional manner.)

BEST COPY AVAILABLE

cut	to break or tear. "The rope cut!" (The string broke.)
cutlass	machete. One of the most general and important implements in the interior. (d'A.)
cut throat	to gain by outwitting a rival. "I was loving that girl but my best friend cut my throat." (He won her away from me.) "That man going so cut my throat for the job in the Ministry." (That man over there did something so that the people hired him instead of me.)
dash	a tip or gift; to give something to someone in return for a favor. "Dash" does not imply anything like the word "bribe" (see "knock belly") but rather indicates reciprocity, recognition of a favor for service done, or the worth of the person being "dashed." In some tribal languages the term for such a token gift means, literally, "respect." It is an indication of the esteem or satisfaction one has with regard to a person who has rendered a service or who is being asked to do so. (d'A.) "Mommy, since I buy plenty fish from you, you must dash me one fish-o!" (customer to a market lady: Since I gave you a lot of business--and thus you don't have to stay as long in the market until all your fish are sold--you should give me another fish as a sign of appreciation.)
dear	expensive "Pepper too dear this time." (The price of pepper has gone up--as it usually does during the dry season.)
devil	any masked dancer or performer, whether for entertainment or ritual. *Not* to be confused with the Euroamerican concept of "devil," "satanic," or "evil," though this is the way the term was applied by early missionaries and other travelers to Africa. When a Liberian speaks of "devil business," he means something sacred or mysterious connected with tradition. It is still in common usage among English-speaking peoples of urban and rural Liberia, but there is an increasing avoidance of such terms by sophisticated Liberians--particularly those who are developing a renewed pride in their traditions, having had an opportunity to see them more objectively. It is best to learn the specific local names for any ritual figures and to refer to these respectfully by these names. It is also important to know that many of these figures are primarily "entertainers" and that others are considered to represent sacred spiritual entities. The boorishness of tourism is no less evident under these circumstances than if one were to refer to the Roman Catholic pope in his vestments as a "god," to the Christian crucifix as an "idol," and to sacramental wine as "booze." Conversely, it is just as naive to refer to a costumed clown or other entertainer as a "witch doctor," "priest," or "magician." (d'A.)
different-different	varied; many kinds. "The people fix different-different food at the feast." (There was a great variety of food prepared.) Repeating a particular word is a common means of intensifying its meaning.

sassywood	a concoction made from the bark of the *Erythrophlaeus guineensis*. The term may be derived from the English "sauce". Used as an ingredient upon which oaths are sworn, and as an ordeal in cases of litigation. The term has come to be a general reference to all ordeals involving a potion taken internally. (d'A.)
scoobies	low-back tennis shoes
scrapehog	a pejorative term for white people
self	even (used for emphasis) "The man never came self." (He didn't even show up.) "That one self small." (Even that one is too small.) "You self you know that woman cracky." (Even you know that that woman is a bit tetched in the head.)
sister/brother	prefaces a name as a form of address for an older brother, sister, cousin, or associate. "Brother Jacob, please give me small rice." (A person younger than Jacob is making this request.)
sit down good	This means "Squeeze over. Let one more person get in the taxi."
sizeable	physically mature. "He not pekin again, he sizeable boy." (He's no longer a child; he's a big boy/young man now.)
skates	high-back tennis shoes
sleep	also refers to something left out overnight. "Oh! The rice slept in the pot-o!" (Somebody forgot to put it away.) "The cassava must sleep for two-three days under the water." (Keep the cassava in the water for a few days until it ferments (for making fufu).)
slippers	rubber thongs or sandals
small	a little. "Wait small." (Hold on a minute.) "The water coming small-small." (Just a trickle.)
small boy/small girl	a child; an inferior or unrecognized person. "You think you know this place? You small boy!" (You don't know all the ins and outs of this place and the people who work here like I do.)
so	this way/that way. "The man went so." (He went that-a-way.) "Where's the chief?" "He so." (Over there.) "Let it be so." (Enough!)
so-so	1) neither good nor bad. "How you feeling?" "So-so." 2) lots of, nothing but. "So-so bones in the soup." (Lots of bones.) "So-so red marks on my card." (Lot's of F's on my report card.)
Something	"Where my something?" (Where's the thing you said you had for me?)
sometime	perhaps. "Let go see Hawa. Sometime she having small food for us-o." (Maybe she'll have something to eat.)

BEST COPY AVAILABLE

Poro	the general term for the compulsory fraternal associations, known as the male secret societies, in many of the tribes of central and western Liberia, as well as in Sierra Leone, Guinea, and Ivory Coast. Each tribe has its own name for this organization. It should not be confused with many other types of secret societies which may also exist in the same region. (Compare Sande.) (d'A.)
Poro bush	the sacred grove of the men's secret society where boys are trained and initiation rites take place. (d'A.)
pregnant	(v) to make a woman pregnant. "That the boy who pregnant that woman daughter." (He's the one who got her daughter pregnant.)
prop	to pad one's rear end by wearing more than one pair of trousers.
punk	sodomist
raccoon	a civet
rascal	tricky, deceitful, crafty. "You see how the man can talk one thing and do different thing? He too rascal!" (He doesn't practice what he preaches.)
reach	to arrive. "What time you reach Monrovia?" (When did you get there?) to be enough. "The money can't reach-o!" (My money is insufficient.)
rice crust	the toasted rice that sticks to the sides and bottom of the pot after cooking. Highly prized by children, who stand about the fire waiting for the emptied pots. Very much the same as "pot lickin's" or "licking the bowl." (d'A.)
rogue	thief. Thievery is a major crime among most of the tribal peoples of the interior, and thieves are punished severely. The cry of "rogue, rogue, rogue" may also be heard frequently in towns and cities, where crowds will follow an apprehended thief to jail, shouting abuses and calling attention to his/her crime. (d'A.)
rope	any piece of string, strip of cloth, or a vine
Sande	the general term for the compulsory sororal associations of female secret societies, which exist among many of the tribes of Liberia as well as in Sierra Leone and Guinea. The term Bundu is also heard, but this is used mainly in Sierra Leone among the Mende people. (Compare Poro.) (d'A.)
Sande bush	the sacred grove of the women's secret society where girls are trained and secret rites of initiation take place. (d'A.)
sapo/sarpo	a type of scouring pad made from the fibers of a gourd (sim. to excelsior)
sassy	full of energy, frolicsome. "That dog too sassy!" (a playful dog)

divide	to distribute or share. "Who divide the cards?" (Who dealt this hand?) "I must divide the rice?" (Should I go ahead and dish it out into each person's bowl?)
doka-fleh	used clothes
dry	sickly, undernourished, skinny. "You looking dry this time." (You've lost a lot of weight.) Not a compliment.
dress	(verb) move over. "Dress small, old lady." (Move over so one more person can squeeze into the taxi or pickup.) (This particular expression is not a comment on the woman's attire!)
dumboy	boiled cassava pounded into a thick, viscous dough, served in a bowl covered with soup, or squeezed into a ball and dipped into the soup. (d'A.) (Compare fufu and gegba.)
ease oneself	to urinate or to defecate. "Teacher, I want go ease myself."
eat	besides the usual meaning, this word also means to embezzle. "The tailor ate my change-o!" (The tailor didn't give me my change.) "The carpenter ate the balance zinc from me." (He kept the rest of the roofing material—which I had bought—for himself.)
eddoe	the tuber of the Colocasia esculenta or Xanthosoma sagittifolium. Known elsewhere as cocoyam or taro. It is cultivated and eaten in Liberia as a "potato." (d'A.)
embarrass	to inconvenience; to be an obstacle to. (This is one of the early Middle English meanings of this word.) "Those children outside are embarrassing us, teacher." (They're probably mak- too much noise so that the students can't hear their teacher.) "That chair embarrassing the door. Move it!" (It's in the way.)
ene?	Is that so? Probably contracted from "Ain't it so?"
ever since	Some time ago; already. "I wash the clothes ever since." (I've already gotten that task out of the way.) "That girl been in the city ever since." (She's been living in Monrovia for a long time now.)
except	unless. "You will not get your check on time except you run behind it." (You yourself have to see that all the papers get processed if you want it in time.)
fine	satisfactory, good, beautiful. "That woman fine-o!" (She's very pretty.) "I see you fix your new room fine!" (You've done a good job painting and decorating it.)
fine time	having fine time: often implies lovemaking. "My girl and I were in the room having fine time."

BEST COPY AVAILABLE

finish	to run out; to have completed a task; to be broken; to be completely out. "The money finish." (No more money.) "My watch finish." (My watch has broken.) "I will soon finish washing my clothes." "The chair fini' breaking." (The chair has broken.) "The man fini' cheap!" (He's stingy as hell!)
flash	splash. "Oh! The pepper water flash in my eye-o!" (He/She may have just mashed a boiled pepper and got a squirt in the eye.)
foot	the whole leg. "He left small to broke my foot!" (He almost broke my leg.)
for true?	Is that right? "The President coming here next week." "Oh, for true?" really, actually, a fact. "The man sick for true." (You're right, he's really sick.)
for what?	why? (often said with a peremptory tone of voice) "I coming to beat you-o!" "For what?" (Don't kid yourself.)
fresh cold	a common cold, no matter how long one has had it. "Fresh cold giving me hard time." (I've had this cold for some time now.)
fresh milk	canned milk. "Please give me one tin fresh milk."
frisky	impertinent, insolent (does not mean frolicsome). "That small boy too frisky!" (He's not behaving properly in the presence of elders or other social superiors.)
fuck	not the powerful obscenity it is in the U.S. It's common to hear respectable people in seemingly polite situations say, "He fuck up!" meaning things did not work out as he had planned. This word is often spelled "fork" on walls, school desks, and in buses.
fufu	a thick dough made from cassava that has been grated or beaten and fermented. After being cooked, it is rolled into a ball and covered with a soup. It is swallowed without being chewed. (d'A.) (Compare dumboy and gegba.)
full	(adj) ripe. "The rice not full yet." (It'll be another couple of weeks until it's ready to be harvested.) high. "The water full-o!" (The rivers and swamps are high.) (v) to fill up. "Full my glass."
gari	coarsely powdered cassava that has been grated, dried, and toasted. It can be eaten with sugar and milk or rehydrated and served with a soup or sauce—as rice is served. Also called farina.
gbasa jamba	cassava leaf (in the Vai language)—particularly a sauce made of the leaves from the cassava plant, which have been beaten in a mortar, cooked with fish, meat, or chicken, red palm oil, pepper, and other ingredients such as beans, okra, or other greens. Served over rice. Sweet-o!

overplus	excessive. "Time we went to the feast we ate overplus." (When we went to the festival, we stuffed ourselves.)
own	worth. "How much groundpea you want?" "I want ten cent own." one's portion. "Gimme my own of rice." real, actual. "That my own pa." (That's my real father, not my guardian.)
palaver	discussion, argument, trouble (derived from the Spanish word palabra, word) (d'A.)
palm butter	The thick, oily gravy strained from the pounded pulp of the palm fruit ("palm nut"). When mixed with pepper and meat, it makes a much relished "soup" to serve on rice. (d'A.)
palm oil	a bright to dark red-orange oil extracted from palm nuts (fruit), used extensively in cooking. It can be "clarified" by heating.
palm wine	The sweet sap of the raffia and oil palms, collected from a cavity cut into the heart of the tree. The sweet—and lightly fermented—sap is called "woman's palm wine." The more sour—and more strongly fermented one is called "the man's own." The fermentation occurs by natural yeasts. (d'A.)
part	that which belongs to somebody. "Is this my part of rice?" (Is this the rice you reserved for me?) "You part, you full of foolishness." (As for you, your full of foolishness. In this context, usually said in jest.)
pass water	to urinate
past	to a greater degree than. "That man big past me." (He's taller or larger in size than I.) "This food sweet past the other one." (This food is more delicious than that.) "That lock small past my own." (That padlock is smaller than the one I have.)
peepee/piss	to urinate (commonly used and inoffensive) "I coming. I want go peepee." (could be said by anybody from a small child to a grown man—or woman)
pekin	small child or young adolescent boy
pellie	good friend, one with whom one has had some pleasant experiences. "I know the Boima too well. That my pellie." (I know the Boima you're talking about. He's one of my best friends.) "Pellie, let's go walkabout!" (Let's take a stroll around town and see what's going on.)
plenty	a lot; many; much. "Plenty pepper inside!" (The food's hot!) "The women plenty in that town." (Lot's of women there.)
poo-poo	excrement; act of defecation "So-so poo-poo on the road!" (Many people have been relieving themselves at the side of the road.)

BEST COPY AVAILABLE

medicine	an object (fetish) or practice (ritual) intended to control supernatural powers for desired ends. "Somebody made medicine against me." (A frequent explanation for otherwise unexplained failure, sickness, or death.) Also called "African science." (d'A.)
meet	also means to find, to come across, to see. "When I reach, I met the people already in the meeting." "I went to your place last night but I never met you." (You weren't home.)
move	get away from. "Move from my face." (Get away from me. Probably a literal translation from an expression in the indigenous languages that means, "Get from in front of me." "Move from there!" (or "Move there!") (Get away from there— either you might disturb something or might get hurt.)
must	please(do). "My ma say you must send her ice." (My mother asks that you please send her some ice.) Should. "I must come?" (Should I come?)
myself	me, too/ me, neither. "My friend can't eat black deer. Myself." (I don't eat it either.)
no mind, yah!	an expression of condolence suitable for soothing a crying child, sympathizing with somebody who has been injured, or comforting a bereaved person.
nothing strange no bad news	a response to the questions, "What news?" or "How you keeping?"
now	(adv) just. "The chief now come." (He has just arrived.) "I now eat the whole thing!" (I just got through eating all of it.)
nut	also means penis (not testicles)
-o!	used at the end of a statement for emphasis (where Americans would indicate emphasis by giving additional stress to the particular word, a practice that might alter the meaning of the word for language-tone-sensitive Liberians), also, "So be warned!" (T. [illegible]) "The teacher coming-o!" (Better stop comparing answers.) "I don't go for it-o!" (I don't like what you're doing, i.e., keep your hands to yourself.)
on/off	(v) "On the light." (Please flip the switch.)
old man old woman	address of respect for older--and not so old—persons. "Old Man Varney, morning-o!" (greeting the gentleman)
one-one	a little bit; small-small. "I can hear Bassa one-one." one by one. "One-one person can see the doctor-o!" (The doctor sees patients individually.)
one time	at once; right away. "You must clean the fish one time." (Does not imply number of times.)

gogba	a thick, viscous cassava dough similar to dumboy but much harder. Small pieces are twisted off a larger ball with the fingers, dipped in soup, and swallowed without chewing. A favorite of the Mano and Gio tribes. (Compare dumboy and fufu.)
go back	also refers to the death of an infant or very young child. "My wife deliver eight babies but four went back." (My wife has had eight children but four of them died before they were two years old.) This expression reflects the common belief that one's soul is waiting somewhere with other souls for the chance to get into the world by way of a new pregnancy. If the particular body that the soul has entered doesn't make it in the world, the soul returns to the waiting place for another chance.
gogbo/gorgbor	the last few drops of liquor in the gourd or bottle. He who takes the gogbo must supply the next round. "Ma! Don't give me the gogbo-o!" (I'm not prepared to offer a round of drinks.)
grona	a street urchin; orphaned; irresponsible, delinquent. (Apparently from the Sierra Leone Krio meaning "grown up" and refers to children and young people without families, living untended in the city. d'A.) "When you walk downtown, you must take time for those grona boys-o!" (Watch out for your wallet/purse and wristwatch.) "Big man like that, he too grona!" (As important as he is, he is, he often acts irresponsibly.)
groundpea	peanut, groundnut (British)
half-way	part way. "Let me carry you half-way." (Since you're on your way now, let me walk with you a little bit (usually to the edge of the town).) "Come leave me half-way." (Walk with me as I set out on my journey.)
hang head	meeting, private talk. "Okay, we will hang head and let you know." (Wait outside while we talk over the problem you have brought before us.)
having	have. "I'm having only ten cents."
hear	to understand. "I can hear Kpelle one-one." (I understand a little of the Kpelle language.) "You hear?" (Do you understand what I just said to you?) This is often contracted to "Yah?"
heart lie down	to be satisfied. "The thing you talking make my heart lie down." (I feel very good about what you've said.)
humbug	to tease or bother. "This Peace Corps man been humbugging me all night, officer!" (Avoid such a situation.) inconvenience, trouble. "Plenty humbug here." (Things are not working smoothly.)

BEST COPY AVAILABLE

in front	ahead, beyond "Go in front." (Go ahead of me--I'll be along in just a minute.)
I say...!	Listen! Do you hear me? common preface to a question, a pronouncement, or a request for attention. "I say,...who working here?" (Who's going to wait on me in this store?)
jina	spirits. Widely used among Liberians to refer to any natural spirit or supernatural entity. Apparently derived from the Arabic jinn. Also refers to familial or guardian spirits. (d'A.)
juke	poke, puncture; ruin somebody's (perhaps illegitimate) chances. "She juke inside the snake hole with a long stick." "That woman husband really juke me for that job-o!" (He interfered with my making a deal with someone to get the job.)
just now	right away. "I coming just now." "That just now I come-o!" (I just got here.)
koko	a malnourished, flea-bitten puppy or dog
kitchen	any roofed-over, but open structure used for cooking or for meetings and receiving visitors. (d'A.) or for [illegible] purposes
knock belly	a colloquialism for doing a favor or giving a gift as an inducement for a requested service (i.e., a bribe) (d'A.) "You want me to fix your check before time? You must knock my belly-o!" (Cough up.)
kola nut	the nut of the Cola nitida and other species of kola tree cultivated throughout West Africa. Between five and ten nuts are clustered in the large green pod of the tree. Along with salt, gold, and slaves, the kola nut was an important part of the ancient trade between the coastal forest areas and the peoples of the high interior savannah. It is highly prized for its taste and stimulating effect. It is chewed during work and on long treks and is said to diminish appetite and increase energy. Kola nuts also have a ceremonial and ritual significance: White kola nuts are symbols of friendship and purity of intention, and are used in gift-exchange as well as in sacred ritual. A red day may also be made from kola nuts. (d'A.)
kro-kro-ji	crooked, deceitful, sneaky. "He play kro-kro-ji." (He achieved his goal by less-than-honest means.) (d'A.)
kuu	an indigenous agricultural cooperative whereby all the townspeople work one person's farm, then another, until all have been prepared or harvested.
kwi	a term widely used among tribal peoples to refer to all foreigners, or those who have come from across the sea. It includes the descendants of Liberian colonists as well as Americans and Europeans. It has also come to be applied to all "civilized" or urban people who dress and behave in a non-traditional manner. (d'A.)

lappa	a piece of cloth about two yards long. It is also a measurement of length for cloth. It is the common attire for women when wrapped about the waist and tucked in as a long skirt. (d'A.)
last time	before; the other day. "I gave it to you the last time." (I have already given it to you.)
lay	to run away; escape. The rogue grab the man watch and lay." (He was gone in a flash.)
leave	let go of. "Leave me!" (Hands off!) "Leave my hand!" (Let go of my arm.)
law	also means a taboo, or prohibition sanctioned by supernatural agencies and supported by ritual. "We can't eat black deer-o!" (It's our family taboo that we do not eat black deer.)
let it be so/ let it stay so	that's enough. Stop. (When something is being measured out, e.g., food, drink, a series of complaints, or a homework assignment.)
like that	approximately, around. "I will come to your place 4 o'clock like that." (may show up at 6 or 7 o'clock.)
load	baggage, things carried. "Who will tote my load, now?" (Who's going to give me a hand here?)
long	tall. "This man long past his brother." (He's taller than the other person he's with.)
loving to	to be a lover. "I want to be loving to you." (I'd like for you to be my girlfriend/boyfriend. Implies a sexual relationship.)
ma	a term of respect for any older woman (including one's mother). To abuse one's mother is the most powerful insult in Liberia.
make farm	the entire process of preparing a plot of land for farming, including the planting of potential crops.
make market	to sell goods (produce, dry goods, baked goods, etc.) in the market place, in front of one's house, on the road, or from a container carried around on the head. "My wife making small-small market this time to help with the food business."
manage	to be able. "How you manage to know?" (How did you find out?)
mean	(v) to wrong somebody. "Teacher Davies mean me with that grade." (He gave me a lower grade than I think I deserved.)
meat	wild game. "That the Peace Corps man meat." (That's the PCV's pet--i.e., some mammal other than a domestic one--for instance a deer or a "racoon" (civet).)

BEST COPY AVAILABLE

FOLLOWING DIRECTIONS

1. Write your name in the upper right-hand corner. Circle the first and last letter. Write the date under your name.
2. Write your name on the line in the lower left-hand corner.
3. Write your first initial and your last name above the box in the upper left-hand corner.
4. Write your initials in the circle. Underline your last initial.
5. Write your name in capital letters in the boxes in the lower right-hand corner. Use one box for each letter. Color in any empty boxes.
6. Write your last name down the left-hand side and your first name down the right-hand side of the paper. Number each letter in your name.
7. Write your last name to the right of the X. Cross out every other letter.

Teacher option: Have student follow oral directions to
complete a task ____________
go to a location ____________

☐

X

○

First name										
Middle name										
Last name										

____
Last name first

"Following Directions," page 1; Solution, page 191.

Copyright © 1978 Goodyear Publishing Company

"Following Directions," page 2; Solution, page 191.

RIDDLE PUZZLE

Name ____________________

Directions:

1. Count 5 rows down. Write the four-letter word starting in the 4th square.
2. Count 5 columns across. Reading down, write the word starting in the 5th square from the top.
3. Find the 10th column across. Write the word starting in the last 4 squares of this column.
4. Write the word made with every other letter in the second row down.
5. Count down to the 5th, 6th, and 7th rows. Write the word made from the 1st letter in each row.
6. Count across to the 9th column. Write the five-letter word that begins with the 1st letter in this column.

Do you know the answer to the riddle? If not, follow these directions.

1. Write the 1st letter in the 2nd row from the bottom.
2. Write the seven-letter word that is in the 4th row down, beginning in the 3rd square.
3. Find the 7th column across. Write the word that begins with the 5th letter in this column.

T	H	I	N	T	S	Q	U	F	E	L
W	O	H	O	E	H	E	T	L	M	S
O	P	E	N	R	G	B	D	I	X	E
Z	E	G	A	R	B	A	G	E	T	R
A	C	O	W	H	A	T	E	S	O	I
N	E	B	S	A	R	R	T	U	V	P
D	L	E	K	S	O	U	P	M	F	E
E	T	R	I	P	L	C	L	A	O	K
A	S	Q	W	A	L	K	O	R	U	N
L	A	W	G	M	A	N	T	K	R	O

Write the words you find here: ____________________

____

____

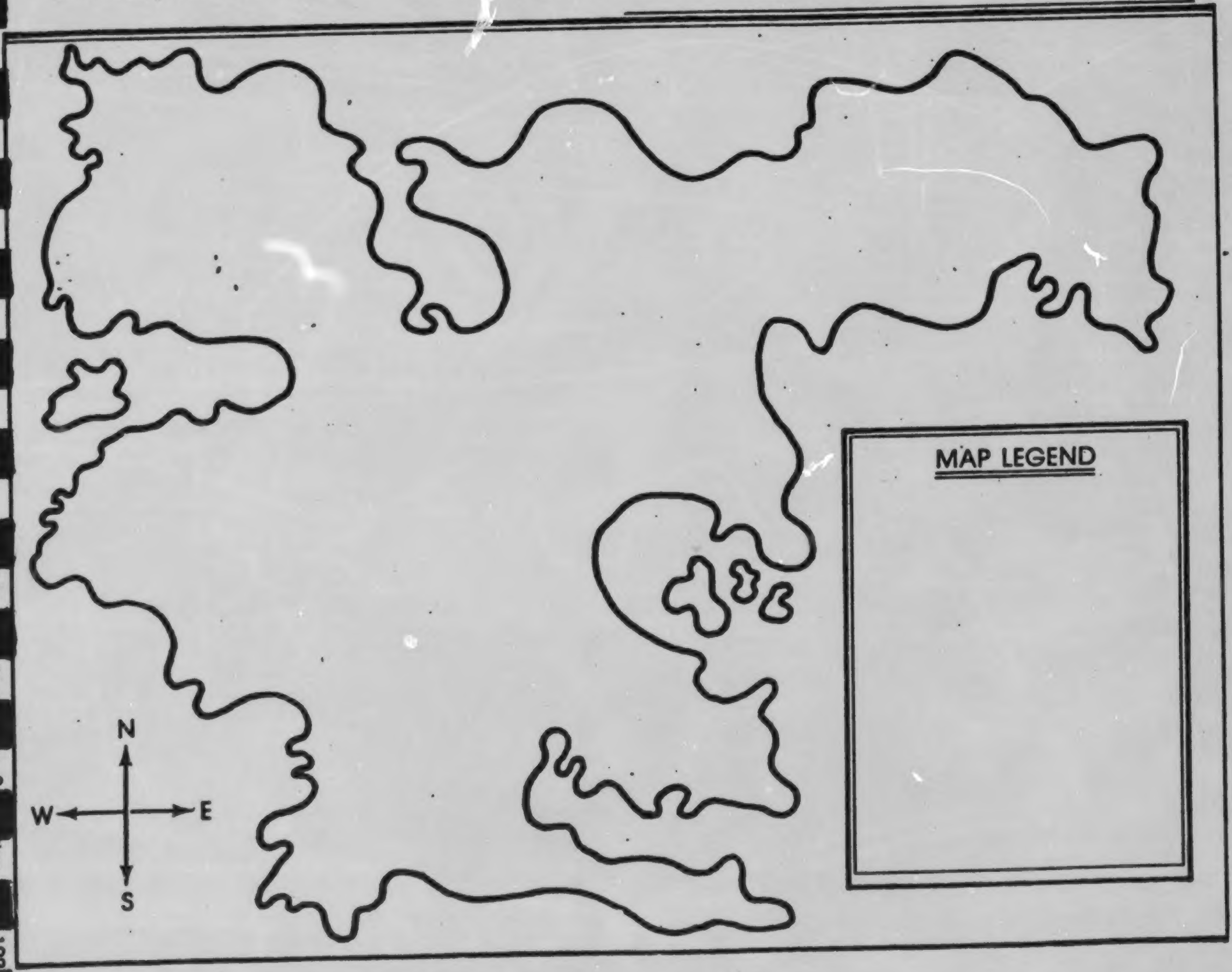
For fun:
There are at least 21 words hidden in the rows and 21 words hidden in the columns, besides the words you just wrote. Can you find them?

Copyright © 1978 Goodyear Publishing Company

Name ____________________

MAP FILL-IN

1. Read all the directions below before starting to fill in the map.
2. Use color and symbols to show:
    - a river running from north to south
    - two roads crossing the river
    - two bridges for the roads
    - a large swamp area between the two roads, east of the river
    - an airport in the southeast
    - a town on the western bank of the river, south of the southernmost road
    - a church northwest of the northernmost road
    - a mountain range west of the river
    - a school west of the town
    - two streams running from the mountain range into the river
3. Complete the legend to show what the colors and symbols on your map stand for.

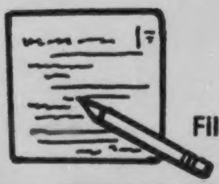


Copyright © 1978 Goodyear Publishing Company

"Following Directions," page 6; Solution, page 192.

Name ____________________

FOLLOWING DIRECTIONS BY MYSELF

Choose a book or other resource that gives directions for completing these tasks	List the source of the directions you followed	Date completed	Verbs used in the directions
Do a science experiment.			
Cook something from a recipe.			
Do an arts and crafts project.			
Go someplace using someone else's directions.			
Demonstrate a first-aid procedure.			
 Fill out a form.			

Copyright © 1978 Goodyear Publishing Company

Name ________________________

PASTE-ONS

Paste on a gum wrapper. Put a ring around the name of the gum.

Paste on a wrapper from your favorite candy bar. Circle the longest word on the wrapper.

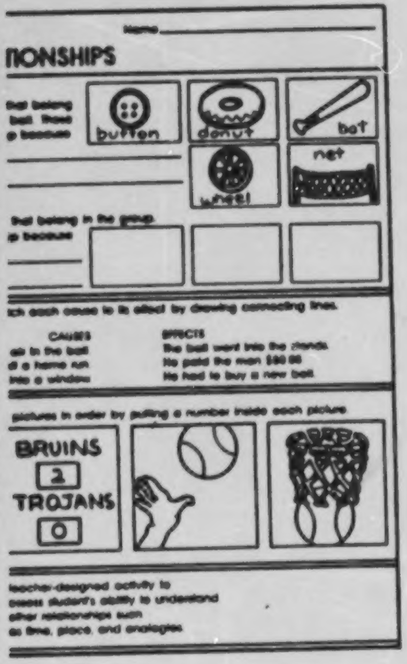
Paste on a label from something you have worn. Put an X on the capital letters.

Paste on a box top from your favorite cereal. Underline the shortest word.

Paste on an ad for a toy you would like to have. Cross out the letters that are found in your first name.

Copyright © 1978 Goodyear Publishing Company

IENT WORKSHEET



Name

IONSHIPS

that belong in the group.
p because

ch each cause to its effect by drawing connecting lines.

CAUSES	EFFECTS
ale in the ball	The ball went into the stands.
d a home run	He paid the man $80.00
into a window	He had to buy a new ball.

pictures in order by putting a number inside each picture.

teacher-designed activity to
ssess student's ability to understand
other relationships such
as time, place, and analogies.

age 181.
201.

SKILLS IN THIS SECTION INCLUDE:

- categorizing, classifying, and sequencing information
- recognizing cause-and-effect relationships

Seeing Relationships

GENERAL ACTIVITIES

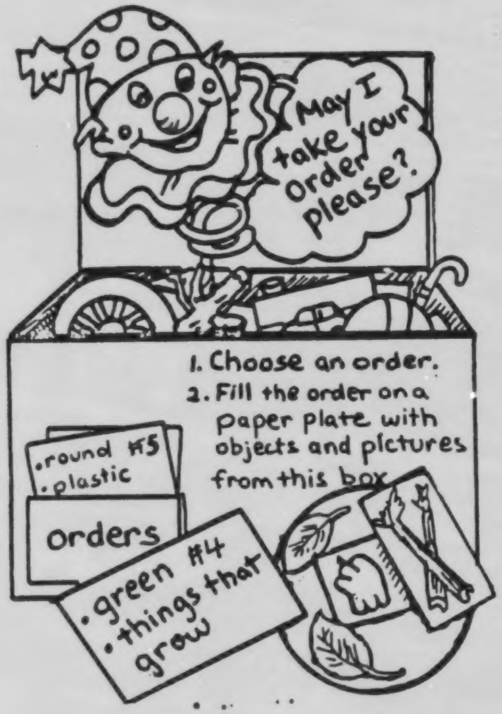
JACK IN THE BOX

skills: categorizing
classifying

Fill a box with objects and pictures and prepare order forms listing various categories. Children can check their work by showing the order and objects to the teacher or by recording the order number and the objects used to fill it on a simple recording sheet.

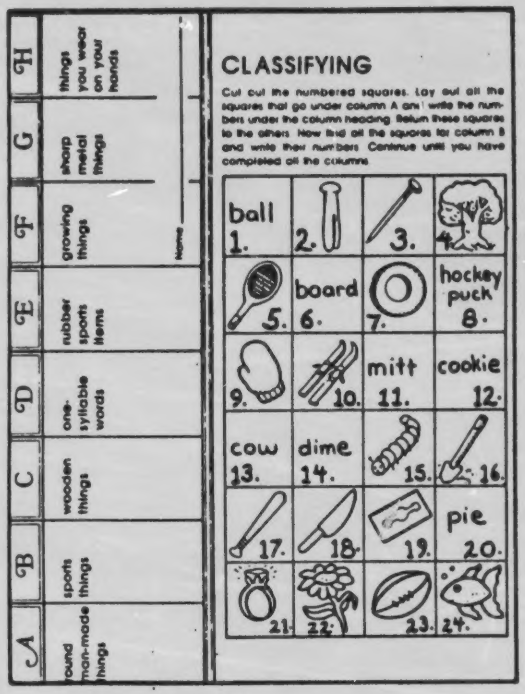
Variation:

Children place objects on a paper plate and another child writes an order to fit the objects.


May I take your order please?
1. Choose an order.
2. Fill the order on a paper plate with objects and pictures from this box.
•round #5
•plastic
orders
•green #4
•things that grow

CLASSIFYING WORKSHEET

skill: classifying



CLASSIFYING

Cut out the numbered squares. Lay out all the squares that go under column A and write the numbers under the column heading. Return these squares to the others. Now find all the squares for column B and write their numbers. Continue until you have completed all the columns.

A ound man-made things

B sports things

C wooden things

D one-syllable words

E rubber sports items

F growing things

G sharp metal things

H things you wear on your hands

Name

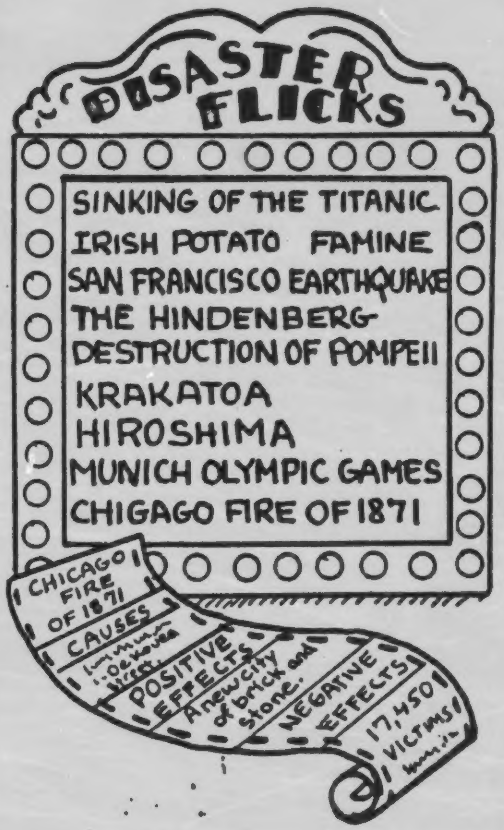
ball 1.
2.
3.
4.
5.
board 6.
7.
hockey puck 8.
9.
10.
mitt 11.
cookie 12.
cow 13.
dime 14.
15.
16.
17.
18.
19.
pie 20.
21.
22.
23.
24.

Reproducible, page 182.
Solution, page 202.

DISASTER FLICKS

skills: identifying causes and effects of historical events

List historical disasters on a chart made to resemble a movie marquee. A child chooses one of the events and does research on it, looking for causes and effects. Then the student writes and/or illustrates its causes and negative and positive effects on a roll of paper.

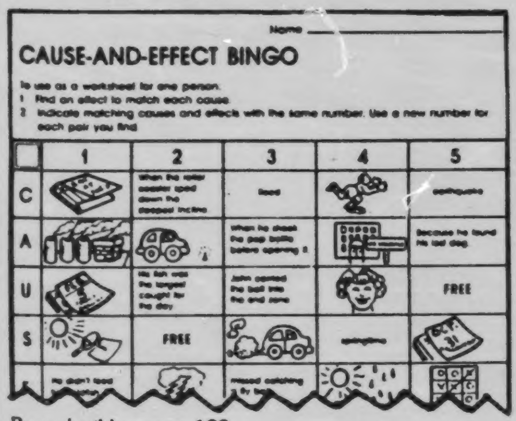

DISASTER FLICKS
SINKING OF THE TITANIC
IRISH POTATO FAMINE
SAN FRANCISCO EARTHQUAKE
THE HINDENBERG
DESTRUCTION OF POMPEII
KRAKATOA
HIROSHIMA
MUNICH OLYMPIC GAMES
CHIGAGO FIRE OF 1871
CHICAGO FIRE OF 1871
CAUSES
POSITIVE EFFECTS
A new city of brick and stone.
NEGATIVE EFFECTS
17,450 VICTIMS

GENERAL ACTIVITIES

CAUSE-AND-EFFECT BINGO WORKSHEET

skill: matching causes and effects

If a worksheet is used as a group Bingo game, label one die with C, A, U, S, E and FREE, and one with 1, 2, 3, 4, 5 and FREE.


Name
CAUSE-AND-EFFECT BINGO
To use as a worksheet for one person.
1 Find an effect to match each cause.
2 Indicate matching causes and effects with the same number. Use a new number for each pair you find.
1
2
3
4
5
C
A
U
S
Because he found his lost dog.
FREE
FREE

Reproducible, page 183.
Solution, page 202.

(2 to 6 players)

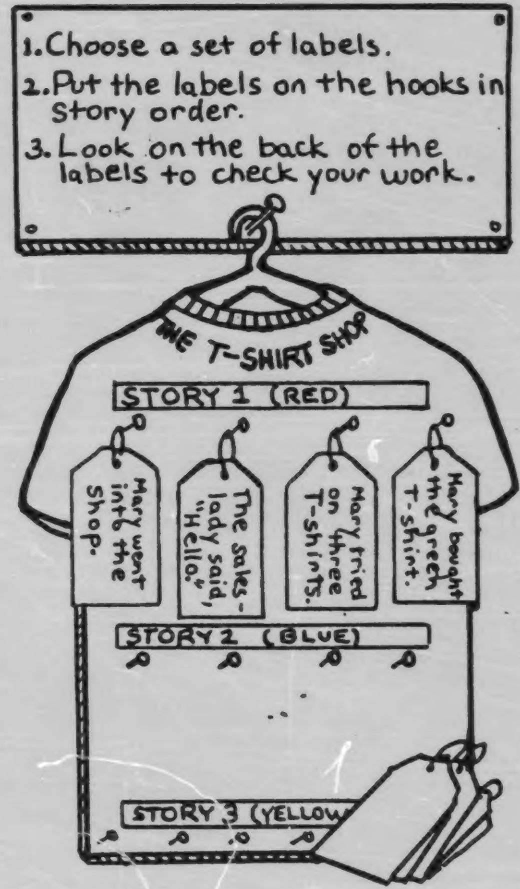
To use as a Bingo game:

1. The players use a special pair of dice, and each gets a worksheet.
2. Each player in turn:
   a. Rolls the dice and locates the box on the top half of the worksheet indicated on the dice.
   b. Finds the effect on the bottom half of the worksheet that matches the cause.
   c. X's out both the cause and the effect boxes, if the group agrees with the choices.
3. The first player to complete a row across, up and down, or diagonally in either half of the worksheet is the winner.

THE T-SHIRT SHOP

skill: arranging sentences in story sequence

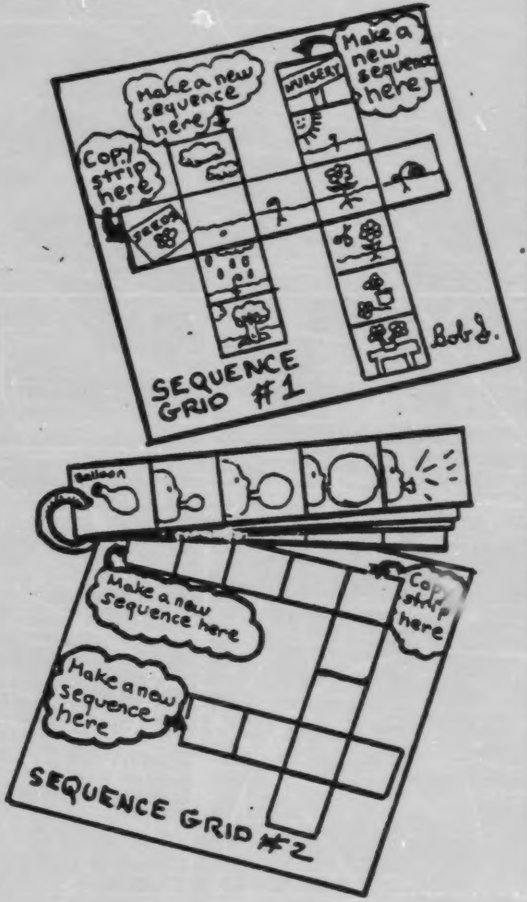
Make up simple stories that are three to five sentences in length. Write each sentence on a label, and color-code the labels to show which sentences go together.


1. Choose a set of labels.
2. Put the labels on the hooks in story order.
3. Look on the back of the labels to check your work.
THE T-SHIRT SHOP
STORY 1 (RED)
Mary went into the shop.
The sales-lady said, "Hello."
Mary tried on three T-shirts.
Mary bought the green T-shirt.
STORY 2 (BLUE)
STORY 3 (YELLOW

SEQUENCE GRIDS

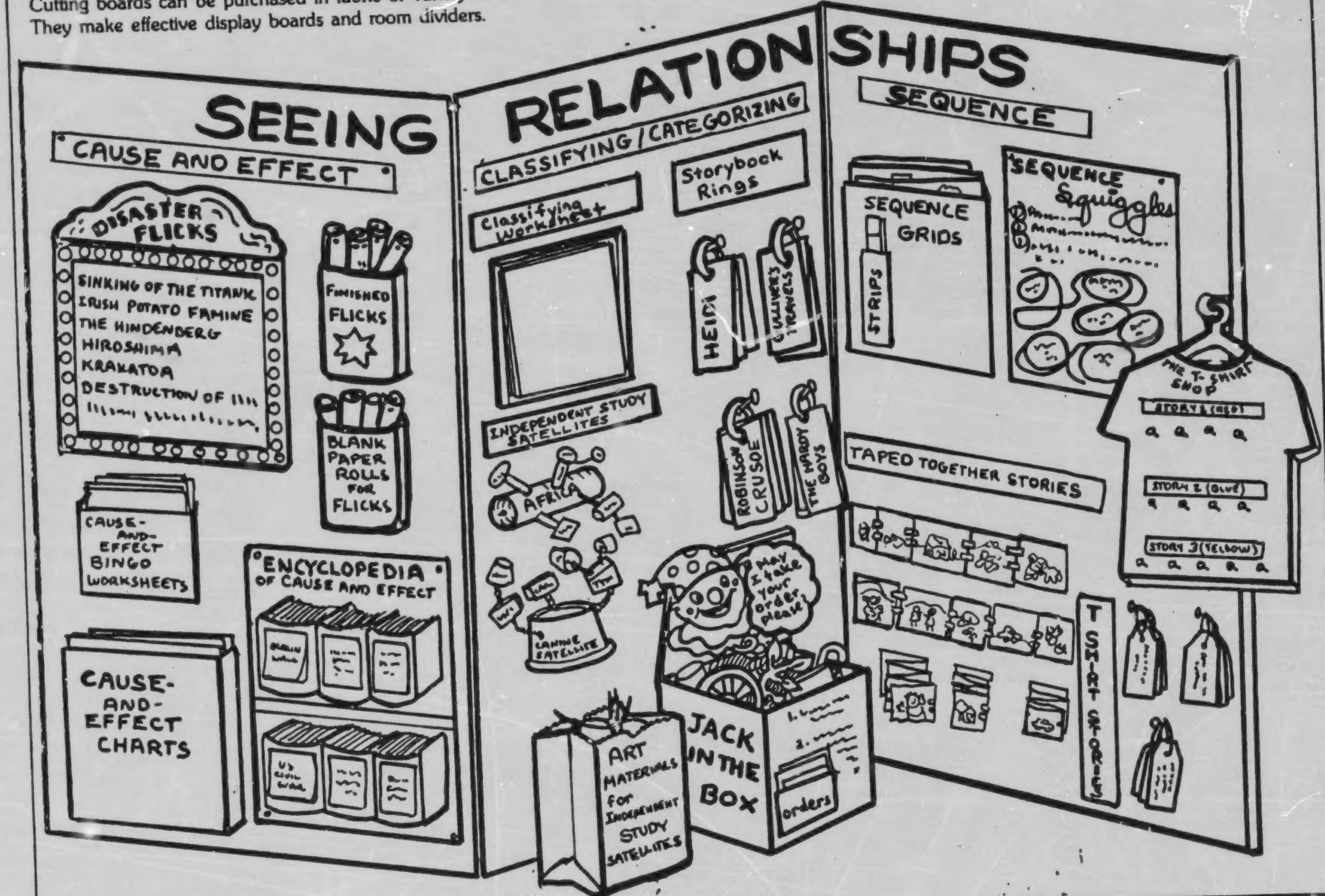
skill: creating new sequences

Prepare a set of picture or word-sequence strips and several large cross-grid patterns. Children choose a sequence strip and copy it onto a cross grid. Then they write or draw in new sequences to fit the grid outline.


Make a new sequence here
Make a new sequence here
Copy strip here
NURSERY
SEEDS
Bob J.
SEQUENCE GRID #1
Balloon
Make a new sequence here
Copy strip here
Make a new sequence here
SEQUENCE GRID #2

LEARNING CENTER

Cutting boards can be purchased in fabric or variety stores. They make effective display boards and room dividers.

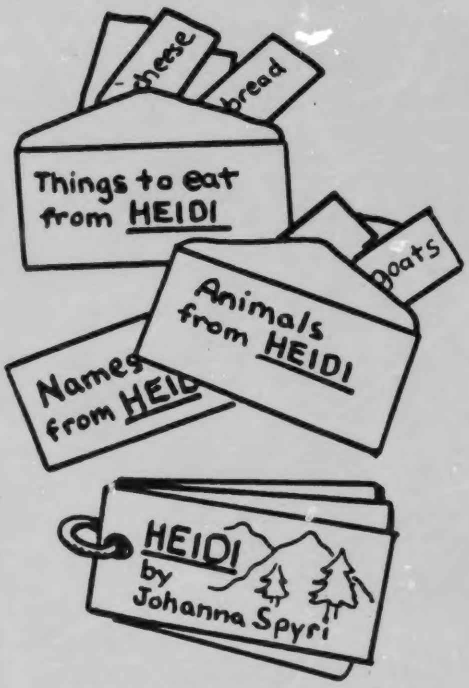

SEEING RELATIONSHIPS
CAUSE AND EFFECT
DISASTER FLICKS
SINKING OF THE TITANIC
IRISH POTATO FAMINE
THE HINDENBERG
HIROSHIMA
KRAKATOA
DESTRUCTION OF
FINISHED FLICKS
BLANK PAPER ROLLS FOR FLICKS
CAUSE-AND-EFFECT BINGO WORKSHEETS
ENCYCLOPEDIA OF CAUSE AND EFFECT
US CIVIL WAR
CAUSE-AND-EFFECT CHARTS
CLASSIFYING/CATEGORIZING
Classifying Worksheet
Storybook Rings
HEIDI
GULLIVER'S TRAVELS
ROBINSON CRUSOE
THE HARDY BOYS
INDEPENDENT STUDY SATELLITES
AFRICA
CANINE SATELLITE
May I take your order please
JACK IN THE BOX
orders
ART MATERIALS for INDEPENDENT STUDY SATELLITES
SEQUENCE
SEQUENCE GRIDS
STRIPS
SEQUENCE Squiggles
TAPED TOGETHER STORIES
THE T-SHIRT SHOP
STORY 1 (RED)
STORY 2 (BLUE)
STORY 3 (YELLOW)
T SHIRT STORIES

GROUP WORK

STORYBOOK RINGS

skill: categorizing

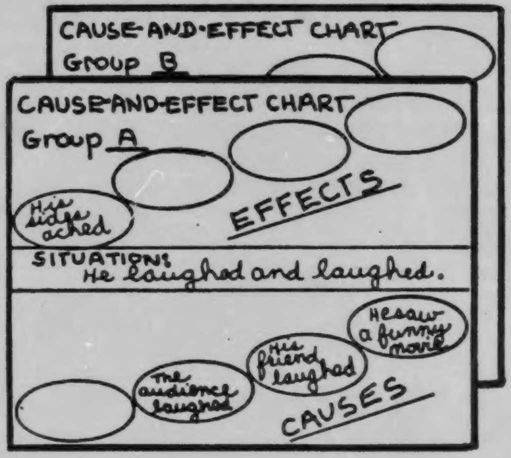
Children name things from a story the group has read or is reading, and write them on wordcards. Help the children categorize the cards. Make an envelope for each category and file the corresponding wordcards within. Attach all the envelopes from one story to a chart ring that names the story or book.


cheese
bread
Things to eat from HEIDI
goats
Animals from HEIDI
Names from HEID
HEIDI by Johanna Spyri

CAUSE-AND-EFFECT CHARTS

skill: developing causes and effects for a given situation

Make two cause/effect charts and laminate them so that they may be used many times. Divide the group in half, and give each half a chart on which the same situation has been written. Each group fills in causes and effects on its chart. The group that lists the greatest number of reasonable causes and effects may suggest the next situation to be used.


CAUSE-AND-EFFECT CHART
Group B
CAUSE-AND-EFFECT CHART
Group A
His sides ached
EFFECTS
SITUATION: He laughed and laughed.
He saw a funny movie
His friend laughed
The audience laughed
CAUSES

TAPED-TOGETHER STORIES

skills: recalling important story events
recalling story sequence

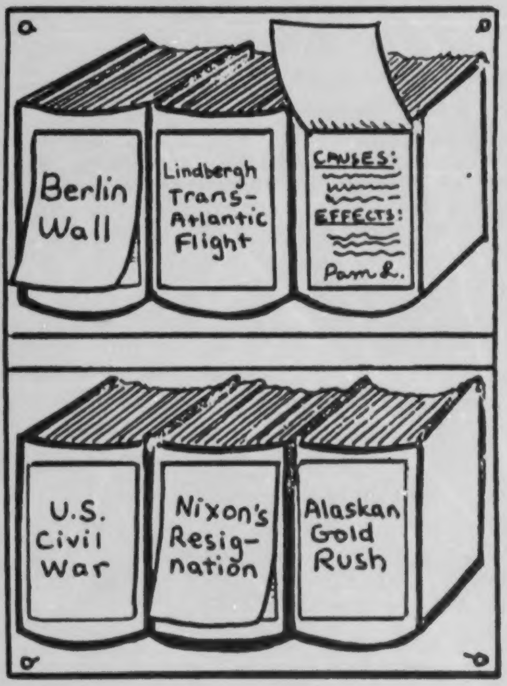
Each child chooses an event to illustrate from a story the group has read. When the children finish their illustrations, they arrange the pictures in story sequence, tape them together, and display the story strip in the classroom.

INDEPENDENT STUDY

ENCYCLOPEDIA OF CAUSE AND EFFECT

skill: researching historical events for causes and effects

Make a chart to resemble books on a shelf. Tape or staple several sheets of paper to the "spine" of each book and label the top sheet with a historical event. Each child chooses an event to research and writes its causes and effects on the extra sheets.

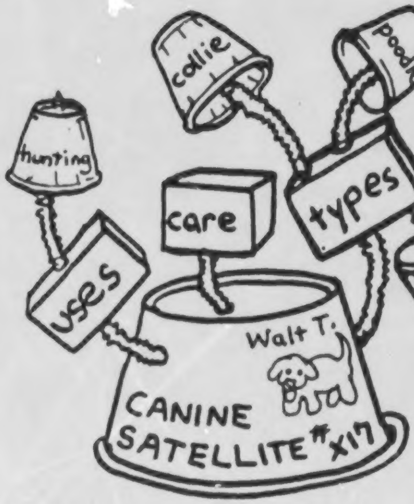

Berlin Wall
Lindbergh Trans-Atlantic Flight
CAUSES:
EFFECTS:
Pam R.
U.S. Civil War
Nixon's Resignation
Alaskan Gold Rush

INDEPENDENT STUDY

INDEPENDENT STUDY SATELLITES

skills: categorizing subtopics within a main topic
researching

Children use cottage cheese cartons, boxes, or other containers as bases for their satellites, labeling them with their independent study topics. The children think of information categories related to their topics and label the first "arms" of their satellites with these categories. They add information to the major categories in their topic as their study progresses.

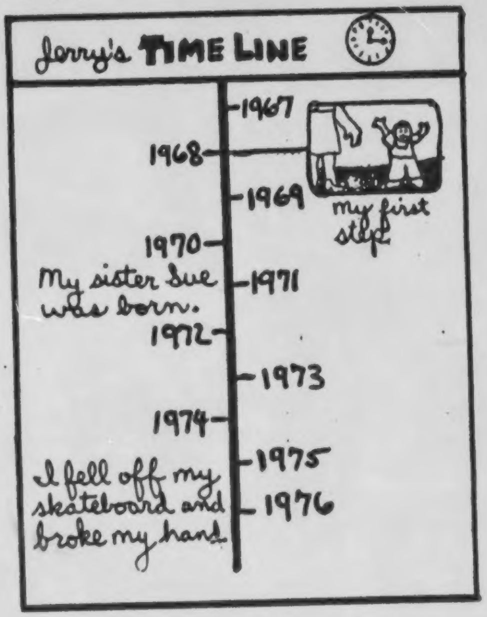

hunting
collie
poodle
care
types
uses
terrier
Walt T.
CANINE
SATELLITE #X17

INTEGRATING WITH THE REAL WORLD

PERSONAL TIME LINES

skills: seeing time relationships
making time lines

Children make up their own personal times lines, from birth to the present. Major events in their lives are written, drawn, or illustrated with photographs from home in time sequence.


Jerry's TIME LINE
1967
1968
1969
my first step
1970
My sister Sue was born.
1971
1972
1973
1974
1975
I fell off my skateboard and broke my hand.
1976

HOMEWORK CATEGORIZING

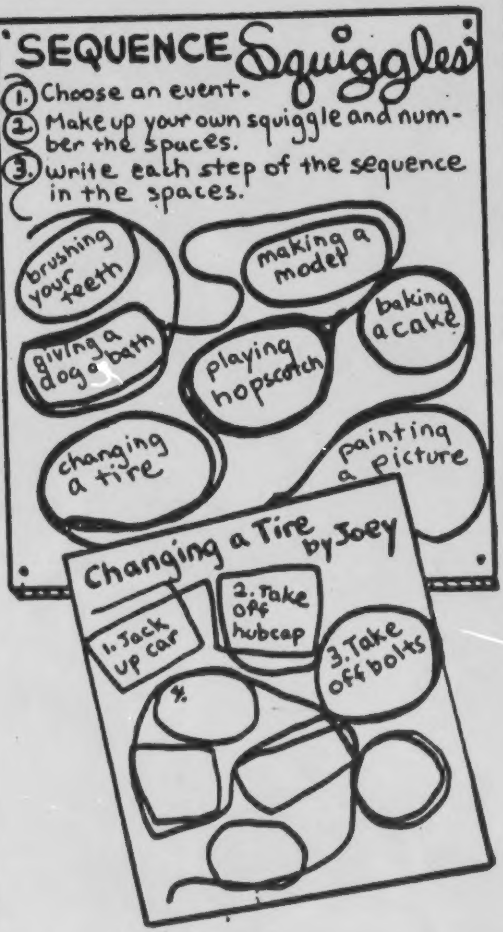
skill: categorizing

Children clean out a drawer, shelf, or cupboard at home and sort the items into several categories. Afterward, they make lists of the categories and items and bring them to school.

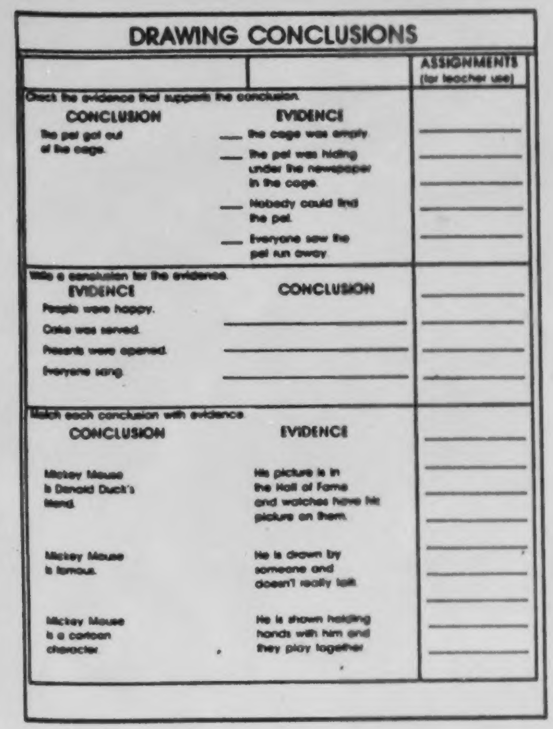
SEQUENCE SQUIGGLES

skill: sequencing steps in real-life procedures

Make a squiggle chart listing a variety of everyday events. Younger children might start with simple squiggles of only three or four spaces; older children may draw more complex designs.


SEQUENCE Squiggles
1. Choose an event.
2. Make up your own squiggle and number the spaces.
3. Write each step of the sequence in the spaces.
brushing your teeth
making a model
baking a cake
giving a dog a bath
playing hopscotch
changing a tire
painting a picture
Changing a Tire by Joey
1. Jack up car
2. Take off hubcap
3. Take off bolts
4.

ASSESSMENT WORKSHEET



DRAWING CONCLUSIONS

ASSIGNMENTS (for teacher use)

Check the evidence that supports the conclusion.

CONCLUSION	EVIDENCE
The pet got out of the cage.	___ the cage was empty ___ the pet was hiding under the newspaper in the cage. ___ Nobody could find the pet. ___ Everyone saw the pet run away

Write a conclusion for the evidence.

EVIDENCE	CONCLUSION
People were happy.	
Cake was served.	______________
Presents were opened.	______________
Everyone sang.	______________

Match each conclusion with evidence.

CONCLUSION	EVIDENCE
Mickey Mouse is Donald Duck's friend.	His picture is in the Hall of Fame and watches have his picture on them.
Mickey Mouse is famous.	He is drawn by someone and doesn't really talk.
Mickey Mouse is a cartoon character.	He is shown holding hands with him and they play together

Reproducible, page 184.
Solution, page 202.

SKILLS IN THIS SECTION INCLUDE:

- identifying and developing evidence to support a conclusion
- developing conclusions related to given evidence

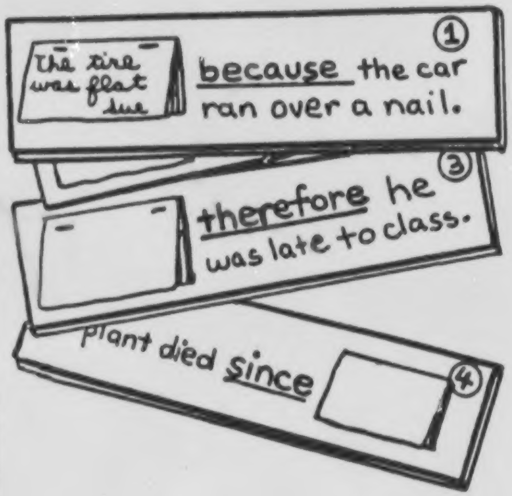
Drawing Conclusions

GENERAL ACTIVITIES

CONCLUSION CONNECTORS

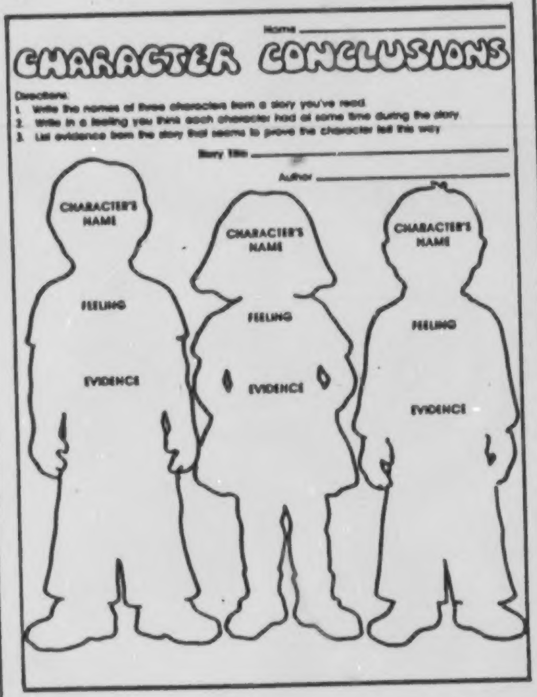
skills: creating causes and effects
seeing causes and effects as evidence and conclusions

Prepare a set of connector strips and staple blank pads of paper onto the strips where the sentence is incomplete. Children read the strips and add either the evidence or the conclusion that would complete the statements.


①
The tire was flat due
because the car ran over a nail.
③
therefore he was late to class.
plant died since
④

CHARACTER CONCLUSIONS WORKSHEET

skill: locating evidence to support a conclusion


Name ____________

CHARACTER CONCLUSIONS

Directions:
1. Write the names of three characters from a story you've read.
2. Write in a feeling you think each character had at some time during the story.
3. List evidence from the story that seems to prove the character felt this way.

Story Title ____________

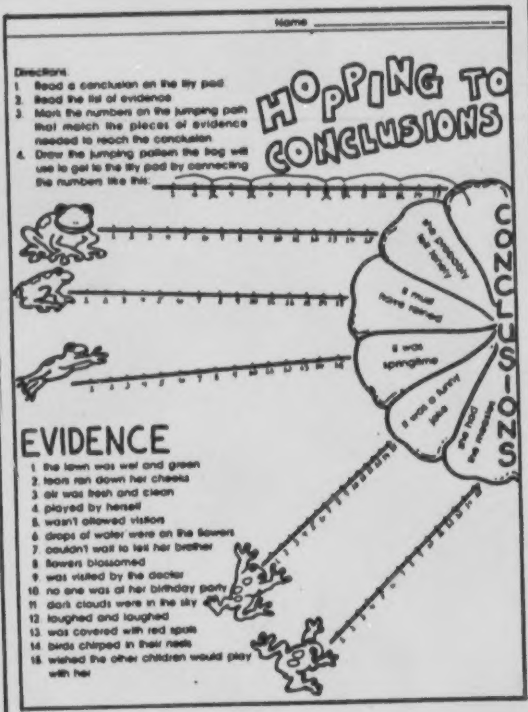
Author ____________

CHARACTER'S NAME
FEELING
EVIDENCE
CHARACTER'S NAME
FEELING
EVIDENCE
CHARACTER'S NAME
FEELING
EVIDENCE

Reproducible, page 185.
Solution, page 202.

HOPPING TO CONCLUSIONS WORKSHEET

skill: identifying evidence to support a conclusion


Name ____________

HOPPING TO CONCLUSIONS

Directions:
1. Read a conclusion on the lily pad.
2. Read the list of evidence.
3. Mark the numbers on the jumping path that match the pieces of evidence needed to reach the conclusion.
4. Draw the jumping pattern the frog will use to get to the lily pad by connecting the numbers like this:

EVIDENCE
1 the lawn was wet and green
2 tears ran down her cheeks
3 air was fresh and clean
4 played by herself
5 wasn't allowed visitors
6 drops of water were on the flowers
7 couldn't wait to tell her brother
8 flowers blossomed
9 was visited by the doctor
10 no one was at her birthday party
11 dark clouds were in the sky
12 laughed and laughed
13 was covered with red spots
14 birds chirped in their nests
15 wished the other children would play with her

CONCLUSIONS
it must have rained
it was springtime
it was a funny joke
she had the measles

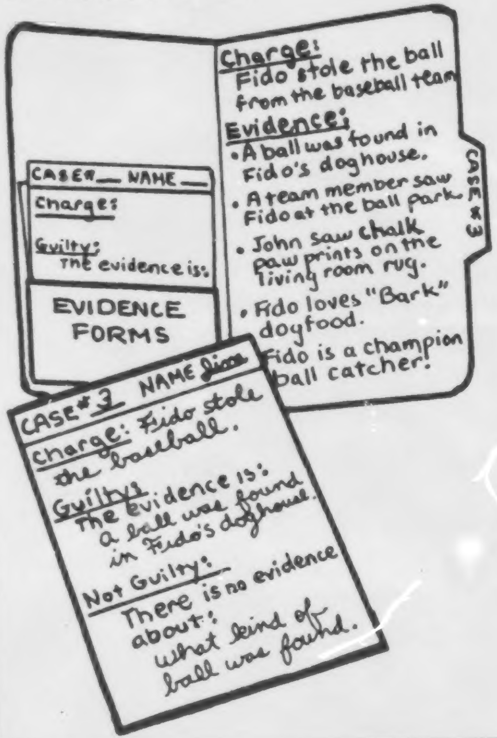
Reproducible, page 186.
Solution, page 203.

GENERAL ACTIVITIES

LEGAL BRIEFS

skills: selecting evidence to support a conclusion
developing evidence needed to support a conclusion

Develop a set of legal briefs by writing a charge and a list of related and unrelated evidence on the inside of a manila folder. Children select and read a brief and fill out an evidence form made by the teacher for the case. Some evidence can come from the list inside the brief; other evidence may be reasoned by the child. Additional legal briefs can be created by the children for their classmates to use.



Charge:
Fido stole the ball from the baseball team

Evidence:
- A ball was found in Fido's doghouse.
- A team member saw Fido at the ball park.
- John saw chalk paw prints on the living room rug.
- Fido loves "Bark" dogfood.
- Fido is a champion ball catcher!

CASE #3

CASE#__ NAME__
Charge:
Guilty:
The evidence is:

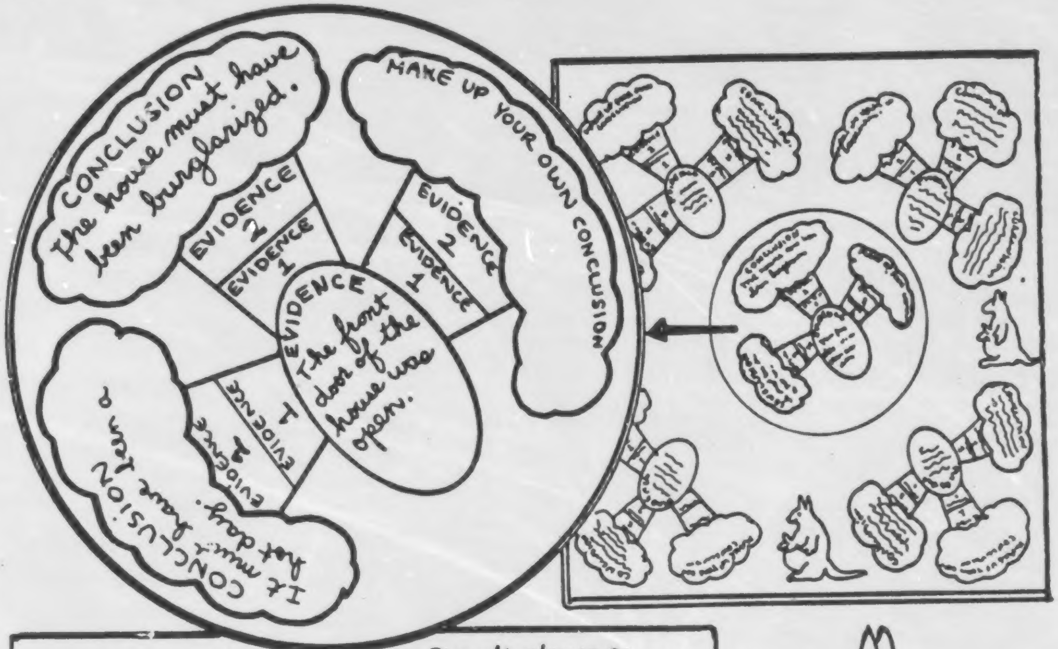
EVIDENCE FORMS

CASE# 3 NAME [illegible]
Charge: Fido stole the baseball.
Guilty:
The evidence is:
a ball was found in Fido's doghouse.
Not Guilty:
There is no evidence about:
what kind of ball was found.

DON'T JUMP TO CONCLUSIONS

skills: developing evidence to support a given conclusion
developing conclusions related to given evidence

Make the gameboard and kangaroo pieces out of heavy cardboard. The players need to listen to each other's evidence in order to verify, negate, or question its relationship to the conclusion.

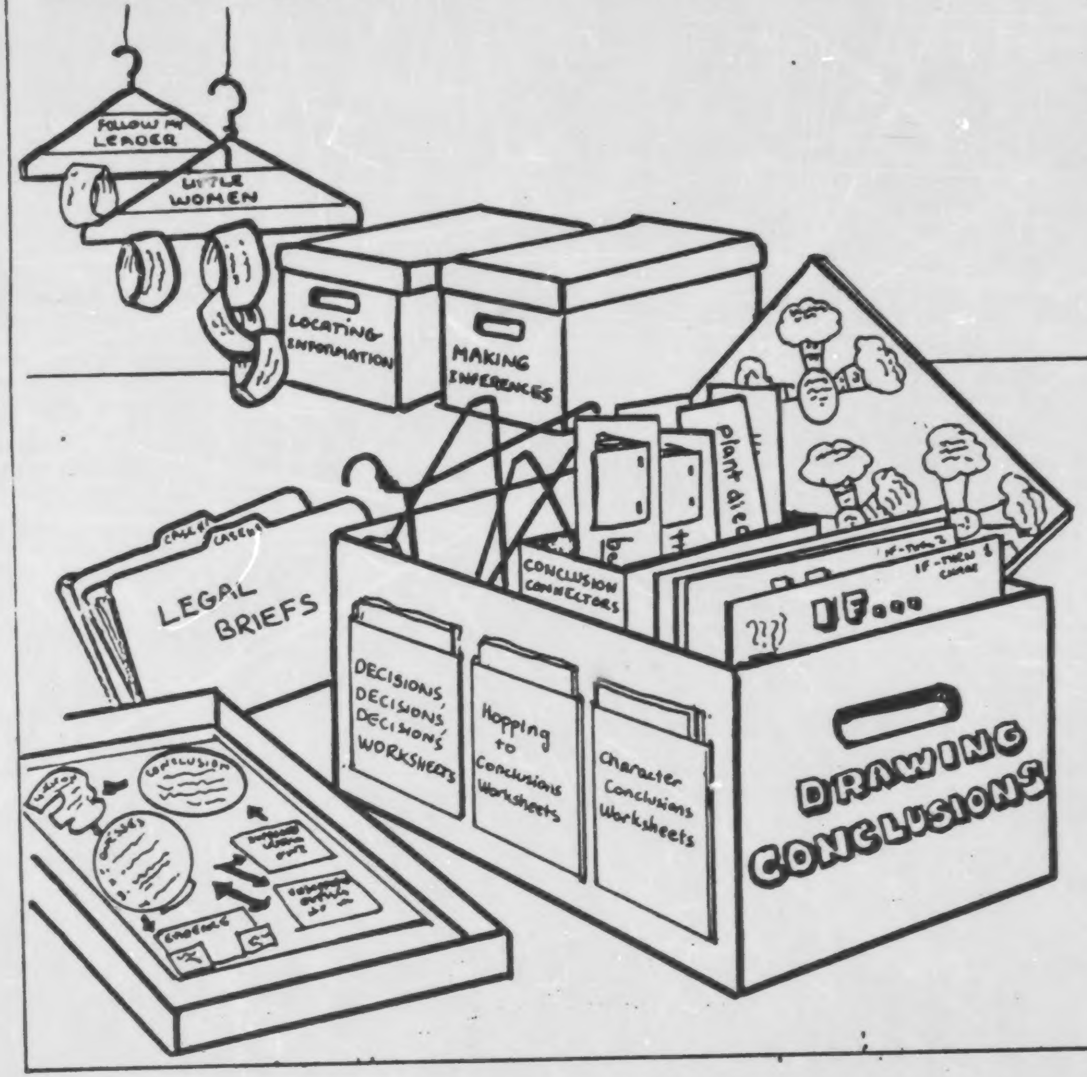

CONCLUSION
The house must have been burglarized.
MAKE UP YOUR OWN CONCLUSION
EVIDENCE 2
EVIDENCE 1
EVIDENCE 2
EVIDENCE 1
EVIDENCE
The front door of the house was open.
EVIDENCE 1
EVIDENCE 2
CONCLUSION
It must have been a hot day.

DIRECTIONS: 2 to 4 players

1. "Hop" a kangaroo to a grove of trees.
2. Read the evidence in the circle at the base of the trees.
3. Move to one of the two conclusions, or make up one.
4. Give (orally) two more pieces of evidence that would support the conclusion selected.

LEARNING CENTER

Housing all materials in a large box provides a learning center that is compact, movable, and easy to store. This is especially useful for teachers who share rooms, have small classrooms, team teach, or move between classrooms or schools during the day.

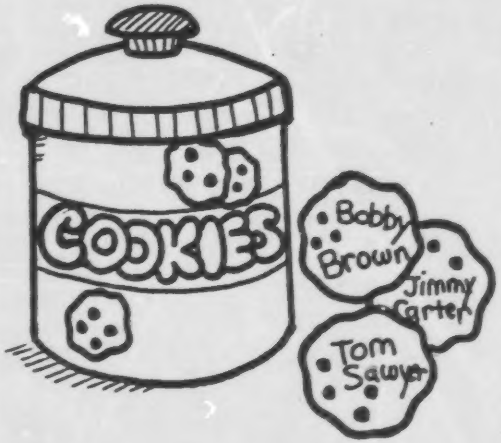

FOLLOW MY LEADER
LITTLE WOMEN
LOCATING INFORMATION
MAKING INFERENCES
plant dis
CONCLUSION CONNECTORS
IF-THEN
IF-THEN & CHAIN
IF...
LEGAL BRIEFS
CASES
DECISIONS, DECISIONS, DECISIONS WORKSHEETS
Hopping to Conclusions Worksheets
Character Conclusions Worksheets
DRAWING CONCLUSIONS
CONCLUSION

GROUP WORK

WHO STOLE THE COOKIES FROM THE COOKIE JAR?

skill: developing evidence to support a conclusion

Use a real cookie jar or decorate a coffee can to resemble a cookie jar. Cut out paper cookies and label each one with the name of a child in the class, a story character, or a famous person. Draw one to four chocolate chips on each cookie. One child takes a cookie from the jar and, without showing it to the others, gives the same number of clues (evidence) as there are chocolate chips. The others try to conclude from the clues whose name is on the cookie.

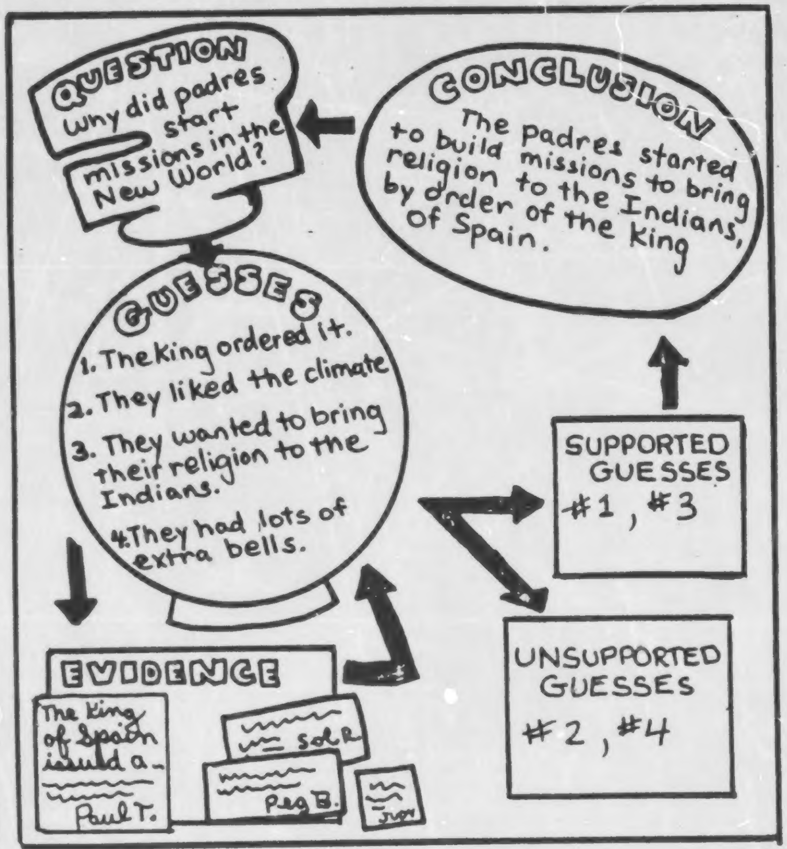

COOKIES
Bobby Brown
Jimmy Carter
Tom Sawyer

GROUP WORK

CHART TALK

skills: locating evidence to support tentative conclusions
researching

Outline the flow chart on cardboard and laminate so it can be reused. Write in a question and have children respond with guesses before doing research. After collecting data, children write down any evidence that relates to the question and attach it to the chart. The original guesses are re-evaluated in terms of the evidence. Guesses that are not supported by the evidence are rejected; those that are supported by evidence are incorporated into a conclusion that answers the question.

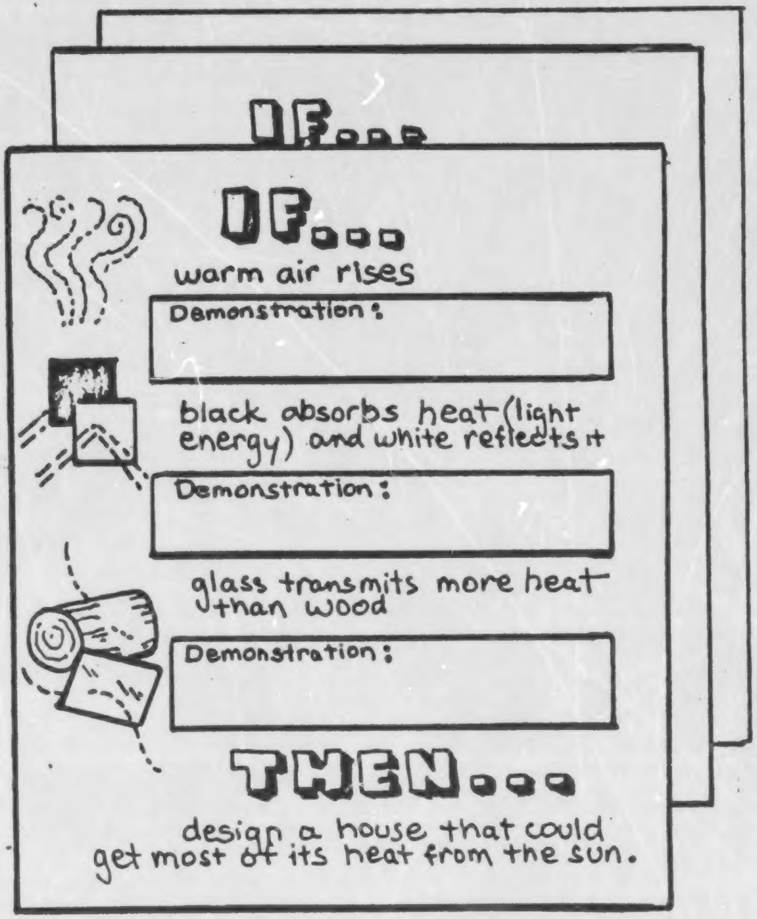

QUESTION
Why did padres start missions in the New World?
CONCLUSION
The Padres started to build missions to bring religion to the Indians, by order of the King of Spain.
GUESSES
1. The King ordered it.
2. They liked the climate
3. They wanted to bring their religion to the Indians.
4. They had lots of extra bells.
SUPPORTED GUESSES
#1, #3
UNSUPPORTED GUESSES
#2, #4
EVIDENCE
The King of Spain issued a
Paul T.
Sol R.
Peg B.
Jon

INDEPENDENT STUDY

IF/THEN CHART

skill: applying conclusions to a new situation

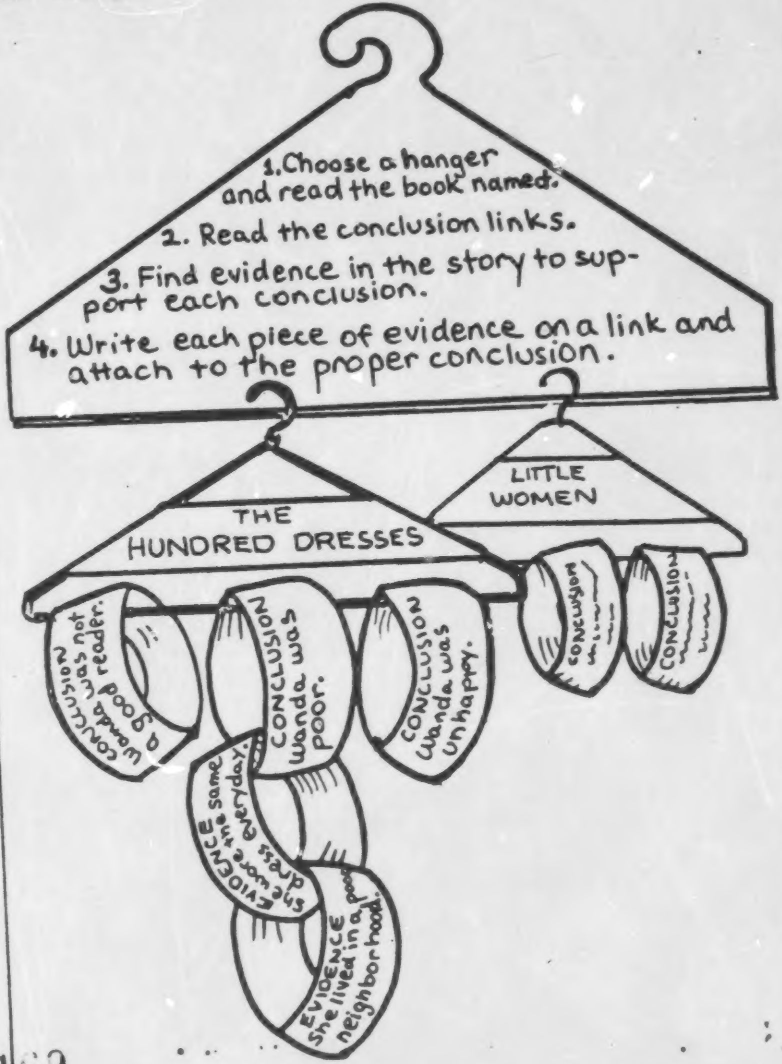
Make several IF/THEN charts. The children may devise their own way to demonstrate the "IFs" or they may be directed to science books or other sources for suggestions on demonstrations.


IF...
IF...
warm air rises
Demonstration:
black absorbs heat (light energy) and white reflects it
Demonstration:
glass transmits more heat than wood
Demonstration:
THEN...
design a house that could get most of its heat from the sun.

INDEPENDENT STUDY

CONCLUSION CHAINS

skill: locating evidence to support a conclusion



1. Choose a hanger and read the book named.
2. Read the conclusion links.
3. Find evidence in the story to support each conclusion.
4. Write each piece of evidence on a link and attach to the proper conclusion.

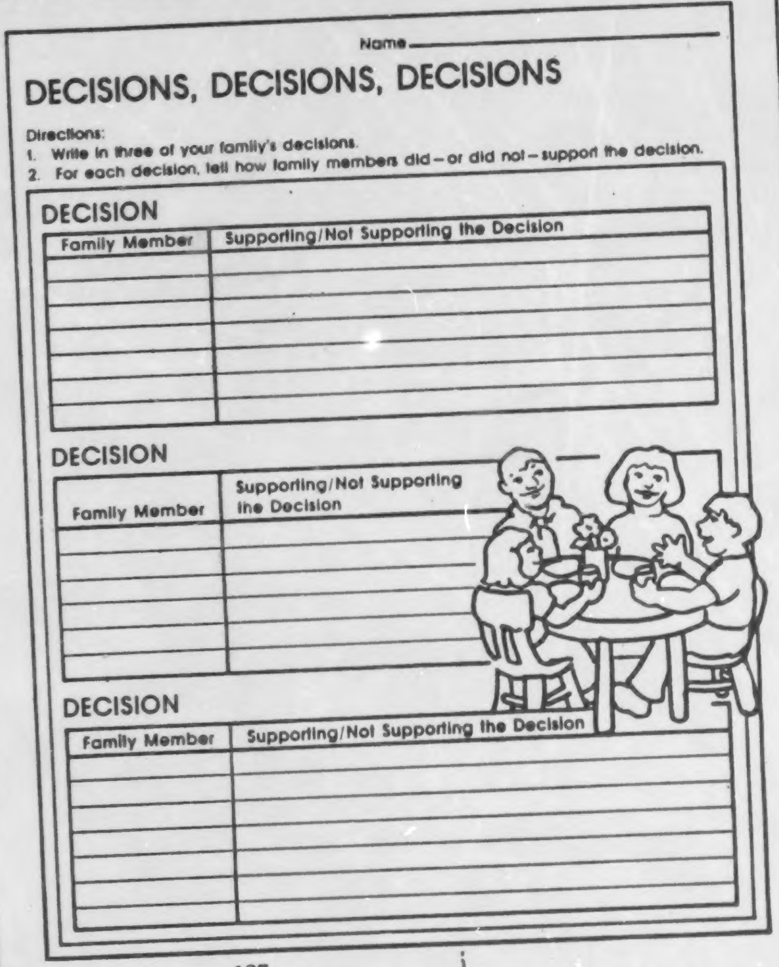
THE HUNDRED DRESSES
LITTLE WOMEN
CONCLUSION Wanda was not a good reader.
CONCLUSION Wanda was poor.
CONCLUSION Wanda was unhappy.
EVIDENCE She wore the same dress everyday.
EVIDENCE She lived in a poor neighborhood.
CONCLUSION
CONCLUSION

INTEGRATING WITH THE REAL WORLD

DECISIONS, DECISIONS, DECISIONS WORKSHEET

skill: identifying evidence used in making decisions

Children complete their worksheets at home. In the classroom, ask them to describe how decisions are made in their families.



Name ____________________

DECISIONS, DECISIONS, DECISIONS

Directions:
1. Write in three of your family's decisions.
2. For each decision, tell how family members did—or did not—support the decision.

DECISION

Family Member	Supporting/Not Supporting the Decision

DECISION

Family Member	Supporting/Not Supporting the Decision

DECISION

Family Member	Supporting/Not Supporting the Decision

Reproducible, page 187.
Solution, page 203.

UNIVERSITY OF THE DISTRICT OF COLUMBIA
1100 HARVARD STREET, N. W.
WASHINGTON, D. C. 20009

STUDENT TEACHER EVALUATION: SECONDARY PROGRAM

Name of Student ____________________ Date ____________________

Subject or Grade Taught ____________________ School ____________________

Cooperating Teacher use ✓ College Supervisor use X	A Outstanding		C Average		F Failure
	A	B	C	D	F
1. Competence in subject matter..................					
Knowledge of pupils..........................					
Providing for health, welfare, and needs of pupils..................................					
Control and influence over pupils...........					
Competence in motivating learning...........					
6. Planning and preparation....................					
Skillful use of techniques and materials....					
Evaluation of pupil progress................					
9. Initiative, resourcefulness, and industry...					
Quality of speech............................					
Meeting responsibilities as a teacher, (out-of-class duties, records and reports, school procedures, school property).........					
Professional relationships with teachers, administrative officers, parents............					
Courtesy, tact, self control, poise.........					
Participation in school and community activities (meetings, extra curricular, PTA....					
Potential for growth as a teacher...........					

TO BE COMPLETED BY THE COOPERATING TEACHER: Recommended Final Grade ______

Number of Absences ________
Number of Times Tardy ______
Comments:

____
Cooperating Teacher's Signature

TO BE COMPLETED BY THE COLLEGE SUPERVISOR: Recommended Final Grade ______

Course Designation
Comments:

____
Signature of College Supervisor

TO BE COMPLETED BY THE STUDENT TEACHING DIRECTOR

Total hours: Observation __________
Teaching __________

____
Student Teaching Director

EXIT COMPETENCIES FOR STUDENT TEACHERS - D. C. Public Schools

Student teacher______________________________ School____________________

Subject______________________________ Grade Level____________________

Observed by:________ ______________________________

DIRECTIONS: The student teacher will be appraised from 1 to 5 under each area under management performance and instructional performance. A rating of 1 means Outstanding; 2 means Very Good; 3 means Satisfactory; 4 means Conditional; and 5 means Unsatisfactory.

	Date: ______ Time: ______ Initial Appraisal	Date: ______ Time: ______ Mid-Point Appraisal	Date: ______ Time: ______ Final Appraisal
A. Management Performance			
1. The appraisee will demonstrate the ability to communicate with students.....			
• Praises and encourages students' actions			
• Accepts and uses students; ideas clarifies, builds, and develops			
○ Communicates with students in terms they can understand			
○ Develops students' understanding of the needs of various roles, rules, goals			
• Provides experiences which promote the development of critical and independent thinking			
2. The appraisee will demonstrate a knowledge of and rapport with students and control of classroom			
• Provides recognition for individual student successes			
○ Acts objectively in dealing with students' aggressive behavior			
• Creates an atmosphere of cooperativeness with mutual respect for feelings, rights, abilities of others.			

	Date:________ Time:________ Initial Appraisal	Date:________ Time:________ Mid-Point Appraisal	Date:________ Time:________ Final Appraisal
3. The appraisee will demonstrate planning and preparation....... o Reveals in his/her objectives organized planning to include basic elements, such as: behavioral objectives, instructional activities, summary, evaluation, and assignment or follow-up • Has materials organized and easily accessible • Moves smoothly from one activity to another o Employs flexibility • Shows and maintains evidence of methods for evaluating students and meeting their needs o Organizes objectives to provide for continued growth of students			

COMMENTS/RECOMMENTATIONS:

____

____

____

____

	Date: ____ Time: ____ Initial Appraisal	Date: ____ Time: ____ Mid-Point Appraisal	Date: ____ Time: ____ Final Appraisal
3. The appraisee will display a physical environment which facilitates positive learning...			
o Arranges furniture and materials in position for effective attainment of lesson objectives			
o Displays and uses bulletin boards, charts, pictures, and other visuals to enhance instruction			
o Controls and changes physical aspects (heat, light, ventilation, etc.)			
B. Instructional Performance			
1. The appraisee will demonstrate knowledge of subject matter...			
o Reveals in instructional settings through objectives that the appraisee knows the content of his/her field			
o Identifies and relates subject matter to school curriculum/instructional program			
o Relates the subject matter to students' experiences			
2. The appraisee will apply knowledge of materials and techniques in subject field...			
o Adjusts materials to students' learning ability			
o Provides a variety of enriching learning materials			
o Utilizes students' help in establishing objectives, clarifying personal group goals and defining problems for study			
o Adapts new ideas and techniques			

BEST COPY AVAILABLE

UNIVERSITY OF THE DISTRICT OF COLUMBIA
GEORGIA AVENUE HARVARD STREET CAMPUS
1100 HARVARD STREET, N. W.
WASHINGTON, D. C. 20009

OFFICE FOR COORDINATION OF FIELD
SERVICES AND STUDENT TEACHING

The Seven Components of An Instructional Activity

1. Initiating The Class
2. Stating The Behavioral Objective
3. Recalling The Immediate Prerequisites
4. Reviewing Home Study Assignments
5. Introducing New Information
6. Providing Practice and Feedback
7. Closing The Class

7 STEPS TO GOOD OBJECTIVES

1. STATE YOUR GOAL
2. DETERMINE A RATIONALE
3. DETERMINE THE DOMINANT DOMAIN
4. DETERMINE THE LEVEL OR CLASSIFICATION
5. DESCRIBE THE BEHAVIOR
6. FORMAT THE OBJECTIVE
7. USE THE OBJECTIVE

UNIT FOUR

OBJECTIVES

1. Given a list of ten instructional objectives, the student will underline the observable and measurable terms and will classify each objective as motor performance (MP), verbal (V), or discrimination (D).

2. Given a list of performance requirements, the student will classify each as either MP, V, D, or a combination of these.

3. The student will explain what should be done with an objective that appears to be too large and complex or to consist of many kinds of activities.

4. The student will explain the primary difference between an interim objective and a subobjective.

5. Given an instructional objective, the student will select the subobjectives that are critical for completion of the terminal performance requirements.

6. The student will write a brief statement describing why instructional technologists feel there is value in giving objectives to the student.

7. The student will write a brief statement describing why instructional technologists feel that objectives are necessary and valuable for the teacher.

Glossary

Discrimination
A response that requires the student to distinguish between two or more things.

Interim objectives
Temporary performance which aids the student in attaining the terminal performance requirement, but which is usually dropped after terminal criterion is reached.

Motor performance
A manipulative response.

Subobjective
A specification of performance which is a part of a larger objective.

Verbal
A behavioral response that is either written or spoken.

UNIT FOUR

MOTOR PERFORMANCE

adjust
align
apply
close
construct
(dis)assemble
(dis)connect
draw
duplicate
insert
load
manipulate
measure
open
operate
remove
replace
stencil
tune
turn off – on
type

VERBAL

cite
copy
define
describe
explain
letter
list
name
quote
recite
record
repeat
reproduce
(re)state
transcribe
write

DISCRIMINATION

choose
classify
compare
contrast
decide
detect
differentiate
discern
distinguish
divide
identify
isolate
judge
match
pick
select

NOTES:

I. Read and underline the observable and measurable terms in each objective. Mark MP for motor performance, V for verbal, and D for discrimination in the space before each objective.

_____ A. The student will describe the Federal Reserve System in outline form.

_____ B. Given the statistics, the student will be able to draw a bar graph showing cost of living increase in the United States (1965–1969).

_____ C. The student will identify seven kinds of bacteria by labeling an illustration of each.

_____ D. The student will be able to select the tools and equipment needed for a specified chemistry experiment.

_____ E. The student will list two reasons why wind is a limited source of power.

_____ F. The student will be able to construct a circle and a central angle.

_____ G. The student will name nine labor organizations that were attempts to give the laborer better and safer working conditions.

_____ H. Given a list of major bills passed by Congress, the student will be able to select the three which influenced labor and management.

_____ I. The student will record all experimental findings in his class data book.

_____ J. The student will properly focus the lens on a standard microscope.

NOTES:

1. Classify each of the following performance requirements as either V for verbal, D for discrimination, or MP for motor performance, or a combination of these. (Put the critical performance first.)

_____ A. Writing a report
_____ B. Operate a calculator
_____ C. Classify organisms observed through a microscope
_____ D. Adjust the microscope
_____ E. Evaluating a news article
_____ F. Identifying a right triangle
_____ G. Repairing a microscope
_____ H. Explaining repair of a microscope
_____ I. Producing a blueprint

NOTES:

1. What should be done with an objective that appears to be too large, complex and to consist of many kinds of activities? ______________________________

____

____

____

2. What is the primary difference between an interim objective and a subobjective?

____

____

____

3. Read the following instructional objective and select the subobjectives that are critical for completion of the terminal performance requirements.

Instructional Objective: Given a pattern, the student will fasten the pattern to the material, trace the interior design from the pattern to the material, and cut out a duplicate following the pattern outline.

Subobjectives:

______ A. The student will fasten the pattern on the material.

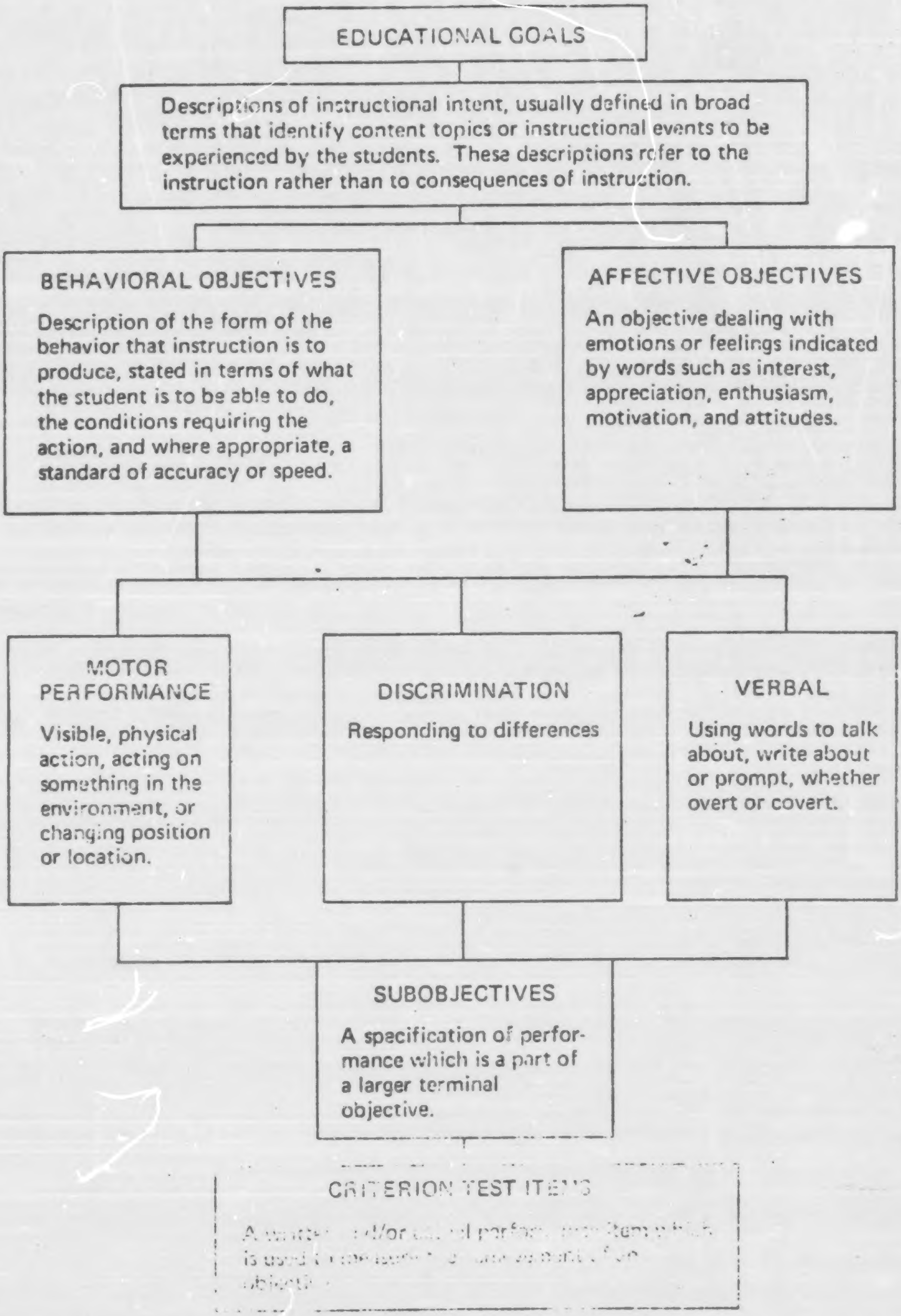
______ B. The student will select the proper tool to trace the interior design from the pattern.

______ C. The student will trace the design.

______ D. The student will describe the procedure of reproducing a copy from a pattern.

______ E. The student will select the proper tool for cutting the duplicate from the pattern.

______ F. The student will cut out the duplicate from the pattern outline.



EDUCATIONAL GOALS

Descriptions of instructional intent, usually defined in broad terms that identify content topics or instructional events to be experienced by the students. These descriptions refer to the instruction rather than to consequences of instruction.

BEHAVIORAL OBJECTIVES

Description of the form of the behavior that instruction is to produce, stated in terms of what the student is to be able to do, the conditions requiring the action, and where appropriate, a standard of accuracy or speed.

AFFECTIVE OBJECTIVES

An objective dealing with emotions or feelings indicated by words such as interest, appreciation, enthusiasm, motivation, and attitudes.

MOTOR PERFORMANCE

Visible, physical action, acting on something in the environment, or changing position or location.

DISCRIMINATION

Responding to differences

VERBAL

Using words to talk about, write about or prompt, whether overt or covert.

SUBOBJECTIVES

A specification of performance which is a part of a larger terminal objective.

CRITERION TEST ITEMS

A written and/or actual performance item which is used to measure the achievement of an objective.

1. Describe briefly why we feel that objectives are so necessary and valuable for the teacher.

2. Describe briefly why we feel there is value in giving our objectives to our students.

NOTES:

UNIT FOUR

SUMMARY

Having objectives available presents various advantages to both the student and the teacher. They help the teacher determine what content should be taught and where he should put the most emphasis. In the same way, a student who has the course objectives will know what areas will be emphasized and what the teacher expects him to achieve by the end of the course. These factors lead to a more efficient and effective course of instruction.

Stress is placed on the type of performance called for by the instructional objective. The validity of a course of instructions based on appropriate objectives and test items depends on the communication of required performance stated in well-defined terms. For clarification and consistency, objectives are placed in three categories:

1. Discrimination Objective – involves the ability to describe or select two or more similar alternatives.

2. Verbal Objective – involves the ability to write or describe orally.

3. Motor Performance Objective – involves the ability to demonstrate a motor skill.

Any of the three classifications of objectives could be combined, depending on the requirements of the terminal objective. A verbal objective might be a subobjective of either a discrimination objective or a motor performance objective, and in like manner a verbal objective might require either the ability to discriminate between various choices or the performance of some motor skill.

Verbalizing a pattern or sequence of performance before the actual performance occurs, or "telling yourself what to do," is an activity that proves valuable and sometimes essential in reaching the terminal objective. This activity can be classified as an interim objective. Interim objectives are temporary patterns stated in action terms that aid the student in completing the terminal performance requirement.

A subobjective is performance that is part of a larger terminal objective and appears as part of the terminal performance. Subobjectives appear when large sequential tasks are involved. [illegible] appears as part of the terminal performance, while interim objectives serve a temporary purpose.

UNIT THREE

OBJECTIVES

1. The student will be able to identify the terms that refer to objectives in the cognitive domain.

2. The student will be able to state the three main characteristics of a behavioral objective and give a brief explanation of each one.

3. Given a list of objectives, the student will be able to identify the behavioral terms, the conditions, and the standards.

4. Given a list of objectives, the student will discriminate between those that are adequate and those that are inadequate.

5. Given a list of objectives, the student will rewrite those that are not stated in behavioral terms.

Glossary

Conditions
That part of an objective which identifies the situations or circumstances (when, what, where, and how) under which the behavior stated in the objectives is to occur.

Standards
The part of the objective which specifies the minimum acceptable performance (time limit, minimum number of correct responses, accuracy) required for a terminal performance. Frequently implied rather than stated.

BEST COPY AVAILABLE

UNIT THREE

1. Which of the following terms usually refer to objectives that have to do with subject matter skills?

____ A. Behavioral ____ C. Behaviorally stated ____ E. Instructional
____ B. Affective ____ D. Cognitive

2. What are the three main characteristics of an instructional objective? Give a brief explanation of each one.

(1) ______________________________

____

(2) ______________________________

____

(3) ______________________________

____

3. Read each of the following objectives. Circle the behavioral terms. Underline the conditions. Draw a wavy line under the standards. If the conditions and/or standards are not stated, record that information in the space provided.

A. The student will be able to list five factors that influence our manpower with respect to import and export of goods.

____

B. Given the names of five authors and the titles of ten novels, the student will match each novel with its author.

____

C. Using a French-English dictionary, the student will translate Beaudelaire's poem "Le Lecteur" with no more than three grammatical errors.

____

D. Write an essay describing the events leading to the stock market crash of 1929.

____

E. Given samples of copper, nickel, and lead, the student will record the color, odor, and texture.

____

F. Given two algebra problems similar to the example, the student will solve them within five minutes and both must be correct.

Example: $ax^2 + bx + c = 0$

____

BEST COPY AVAILABLE

G. Given an alphabetical listing of the first 25 presidents of the United States, the student will be able to name the presidents in chronological order.

____

H. The student will be able to use a slide rule to compute square roots.

____

I. The student will be able to draw a right triangle, an isosceles triangle, and an equilateral triangle.

____

4. Label these objectives.

A = Adequate NA = Not Adequate

If you think the objective is not adequately stated, briefly explain why.

______ A. The student will be able to solve, without error, 20 problems of the form: $ax^3 + bx^2 + cx = 0$

____

______ B. The student will write a paragraph about the Supreme Court.

____

______ C. The student will type a letter in block format without error.

____

______ D. Without using any reference materials, the student will translate a paragraph in English into German with no errors in grammar and no more than one error in vocabulary.

____

______ E. Given examples of Doric, Ionian, and Corinthian orders of Greek architecture, the student will be able to see at least two features that distinguish the columns of each order.

____

5. Objectives are always written in behavioral terms; that is, they must contain an action verb. If any of the following statements does not meet this requirement, rewrite the statement in behavioral terms.

Example: The student will write Einstein's mass energy equation.

A. The student will be able to grasp the difference between an educational goal and an instructional objective. ______________________________

____

____

BEST COPY AVAILABLE

B. The student will be able to list the main characteristics of an instructional objective. ____________________

____

____

C. The student will know objectives that are stated in behavioral terms. ____________________

____

____

D. The student will be familiar with Walt Whitman's poem "When Lilacs Last in the Dooryard Bloomed." ____________________

____

____

E. The student will thoroughly comprehend the reason for writing objectives in behavioral terms. ____________________

____

____

F. Given a list of objectives, the student will be able to identify the behavioral terms, conditions, and standards. ____________________

____

____

G. The student will understand the term "affective goal." ____________________

____

____

H. The student will name the two components of an instructional objective that may be either implied or stated. ____________________

____

____

I. After completing Unit 3 of this workshop, the student will be able to sense the difference between adequate and inadequate statements of objectives.

____

____

J. Given an ambiguous objective, the student will realize whether conditions, standards, or both are needed to clarify the objectives. ____________________

____

____

BEST COPY AVAILABLE

UNIT THREE

SUMMARY

An instructional objective has three components: terms that identify what the student is to do (a verb that identifies the action), standards that tell how well the student is to perform, and the conditions or circumstances under which the student is to perform.

Care must be taken in selecting the behavioral terms describing the required performance. Some terms may be too general and need to be broken down or qualified. Some are adequate, and others are too vague to be useful. Each term selected must specify an observable and measurable activity or product of that activity.

An objective must always be stated in behavioral terms. However, conditions and/or standards may sometimes be implied. If they are needed to clarify the instructional intent, they must be stated. If they are obvious, they need not be stated.

BEST COPY AVAILABLE

H

VOCABULARY PAGE FOR CBC WORKSHOP FOR CAREER DEVELOPMENT CENTERS

CBE

CBC

Entry Level

Criterion Reference

Behavioral Objective

Learning Hierarchy Practice

Feedback/Evaluation

Recycle

Systematic Instruction

Humanism

Competencies

Exit Level

Rationale

Student Satisfaction

Expectation

Module

Curriculum

Assessment Tasks

Shop/Classroom Management

Contium

BEST COPY AVAILABLE

FACTS ABOUT A LEARNING HIERARCHY

A learning hierarchy

- is a "Diagram representing an instructional plan.
- helps to monitor student progress for both student and teacher.
- allows the teacher to diagnose, prescribe and facilitate instruction.
- provides the students with a "map of learning."
- focuses on where the student/teacher are and why they are there.
- emphasizes competence as a factor rather than time as a factor.
- is developed from the top and taught from the bottom.
- should have continuity across levels and instructional areas (subjects).

FUNCTIONS OF A LEARNING HIERARCHY

A learning hierarchy

- specifies needed behaviors necessary to accomplish the terminal objective.
- provides a structure for learning.
- enables the teacher to use logic that is right for the teacher.
- provides a way of monitoring continuous progress of students.
- provides the teacher with an opportunity to assess student's entry behavior.
- provides students with an opportunity to see what they have to accomplish.
- is basically a tool used by teachers to enable a student to succeed in learning.
- provides for long range planning.
- is a reporting device to students, teachers and parents.
- can facilitate communication between instructional levels and instructional areas. (Terminal behavior for one level then becomes entry behavior for the next level).

BEST COPY AVAILABLE

R c

A LEARNING HIERARCHY

A learning hierarchy is an ordered sequence of behavioral objectives with a network that shows pre-requisite objectives. It conveys an ordered relationship or dependency relationship among objectives as it specifies pre-requisite skills that the learner must acquire before he/she acquires a new and more complex skill.

The most complex objective in a given set of objectives for a unit of study is called a *terminal* objective. Its acquisition by the learner depends upon an earlier acquisition of other objectives that are called *subordinate* or *pre-requisite* objectives. The simplest or least complex subordinate objectives of a given set are considered *entry-level* skills. A hierarchy proposes an ordering of these objectives to provide a developmental sequence for the learner's progress from entry-level or lower-level skills toward higher level ones.

Although a hierarchy is structured, it permits some flexibility. A careful study of the network of dependency relationships in a given hierarchy will enable the teacher to identify some clear choices that he/she can make.

In addition to serving a "road-map" function, a hierarchy provides a point of reference in the diagnosis of entry-level skills, the prescription of new experiences for learners, and the assessment of mastery of a specified objective. These functions eliminate the need for floundering or guesswork.

A

TERMINAL OBJECTIVE:

Given demonstrations on the unit method of clothing construction, and the use of a pattern, secondary clothing student will be able to construct a skirt which has the following features; waist band, zipper, darts, and hem with 90% accuracy.

ENABLING OBJECTIVE:

Given a demonstration on the construction of the triple fold band, the student will be able to construct the band and attach the band to the skirt with 90% accuracy.

Given instructions on 5 different samples of stitchery, the student will be able to identify the sample of stay stitching and apply the stitching to the garmet with 90% accuracy.

Given the guide sheet and a demonstration on the pattern layout for fabric grain perfection, the student will be able to follow the instruction with 90% accuracy.

Given instructions and demonstration on pressing techniques with the use of a steam iron and ironing board, the student will be able to apply the proper pressing technique to keep fabric grain perfect with 90% accuracy.

Given the information on the types of fabric and their characteristics, the student will be able to select a fabric which is suitable for the course requirement with 90% accuracy.

Given a demonstration on using marking equipment the student will be able to transfer pattern markings to fabric by using tracing paper and wheel with 90% accuracy.

Given a demonstration and instruction on how to fold and stitch darts, the student will be able to apply the method of stitching a dart with 35% accuracy.

Given the methods of hemming, the student will be able to distinguish the most suitable hem for the garmet, and compare it to the standard of good hemming.

Given a demonstration of the Coats/Clarks instruction on how to apply the 4 steps lapped type zipper application, the student will be able to construct a skirt with the 4 step lapped zipper application with 90% accuracy.

Given a demonstration on cutting the skirt with darts, zipper and band from pattern pieces and fabric, the student will be able to cut the fabric skillfully with 90% accuracy.

Given a demonstration and directions on how to apply directional stitching, the student will be able to follow pattern directional symbols with 90% accuracy.

JOB
JOB DESCRIPTION

JOB: SERVICE STATION MECHANIC-ATTENDANT

The service station mechanic-attendant is required to maintain and service automotive vehicles by referring to available maintenance manuals. He is able to replace and install basic automotive components and repair tires. He also sells auto accessories.

The service station mechanic-attendant's work requires meeting the public. In order to respond to emergency calls, he may be required to drive a car or truck. A mechanic-attendant who establishes his own business may need to know how to maintain business records and inventory.

TASK LISTING

1. Cleans or replaces spark plugs
2. Adjusts and bleeds brakes.
3. Replaces wheel cylinders.
4. Inspects and flushes radiators.
5. Tests antifreeze
6. Repairs tube or tubeless tires.
7. Rotates tires.
8. Lubricates vehicles.
9. Balances tires
10. Replaces air cleaners.
11. Cleans or replaces gas filters
12. Washes and waxes autos.
13. Sel's auto accessories.
14. Replaces oil filters.
15. Checks oil, brake fluid, power steering, etc., etc.

DETAIL
TASK DETAILING

TASK: (1) CLEANS OR REPLACES SPARK PLUGS

1. Note plug location relative to the cylinder; remove plug covers and leads.
2. Remove all spark plugs.
3. Identify the type of plugs.
4. Decide whether to clean, adjust, and/or replace plugs.
5. Adjust and clean plugs, if appropriate.
6. Reinsert plugs in engine.
7. Connect ignition wire to appropriate plugs.
8. Check engine firing for maximum performance.
9. Clean and replace equipment and tools.

1. FACTORS THAT "MAKE OR BREAK" THE JOB.
2. HAZARDS (IN MANY JOBS, THESE RANK FIRST).
3. POINTERS THAT MAKE THE JOB EASIER TO DO: "KNACK", "TRICK", "FEEL", "SAVVY", "SPECIAL TIMING", "BIT OF SPECIAL INFORMATION"

WASHINGTON TECHNICAL INSTITUTE
Bachelor of Science Program in Teaching Technology
Practicum: Instructional Content Courses

Scenario for Videoscope

Occupational Analysis Assignment #3

DEMONSTRATION OF AN OPERATION

Items needed Table 3' x 6' Blackboard or flap over pad

Electric plug - Electric Wire

Wire Stripper - Screw Driver

INTRODUCTORY COMMENT

The tradesman performs many operations skillfully and speedily. Frequently he is no longer conscious of how he learned them. Consequently when he starts teaching he overlooks many fine points which make it either difficult or easy to learn the skill. The electrician would consider fasting a wire to a plug using an underwriters knot a very simple task. Let me show you what we mean by an underwriters knot.

Show a plug with underwriters knot.

Go through steps

1. Pull wire through plug
2. Form loop
3. Pull second wire & form knot
4. Pull knot into plug
5. Fasten wire around screws
6. Show how pull is on knot and not on screw

BEST COPY AVAILABLE

Question? Is fastening a wire to a plug with underwriters knot, a proper title for a basic lesson? Lets find out by teaching this skill to a learner.

Show plug to a learner - pull out.
Ask how that may be prevented.
Show knot with underwriters knot - have learner pull
point out, how load is on knot and not on screws.
Refer to drawing and show how loop is formed on wire.
Show how second wire is pulled through on drawing.
Lets try to fasten a wire using the underwriter knot.

Close-up--showing hands

Show how to hold wire in left hand positioning thumb while forming loop.

Movement of right hand - motion of second wire

Repeat and let learner name steps.

Medium - shot

Let student try.

Close-up Students hands

Close-up Correct errors

Let student do the job complete

List all steps on blackboard - student should name steps

Medium - shot   Assign students two plugs for practice
Summarize precautions
Observe and correct

BEST COPY AVAILABLE

ANNEX B

VOLUNTEER-MADE MATERIALS

(GROUP B)

BEST COPY AVAILABLE

VOLUNTEER-MADE MATERIALS

(GROUP B)

BEST COPY AVAILABLE

Plant	Pre-treat Seeds	Plant positioning		Furrow or raised bed	Type of planting	Season to plant	When to harvest	Additional Comments
		depth	spacing					
peppers	1-2 weeks needed to germinate.	.5 to 1 cm.	2 Kilograms seed needed per acre, 5 to 6 cm. apart + 3 to site when establishing seedling to transplant — 40 cm between plants + 1 meter between rows when placed	ridges of 25 cm. plow to depth 25 cm	transplant or direct seed which offers higher, quicker yield, but need high technology	end of rainy season	most pungent peppers in 4½ months	-Keep plant propped up -day neutral -mulching is very good since weeds are a problem -wide pH range -like loam
eggplant	2 weeks to germinate expose dried seeds to a few hours of 4-6°C temp.	1 cm or less	45 to 120 cm. 400 grams of seed / hectare	-raised beds -well drained -loamy soil	from seed bed to seedling bed at 2 weeks then to field 8 weeks later, sometimes grown from shoot	6 to 8 weeks before rainy season starts	once a week -when fruit is 2/3 full size 60-90 days	-day length indifferent -heavy feeders need a couple fert. application -much sun -only 5 or 6 fruit per plant is optimum
Winged Bean	scarified seeds germ. better 5-15 day to germ	2 in.	1.5 meters betwe rows. 1 meter between plants	if soil will be flooded plant on ridge		either	most often annual sometimes perennial	-photoperiod sensitive -does well in monsoon -needs support pole -turn over + fert before planting
Okra	soak in water 1 day if not already soaked when seeds were being prepared.	1 inch	36-42 in. between rows 12-24 in between plants		Seeds	~~dry~~ when first rains come	continuously harvesting several months 50 60 days when pods are 2-3 in. long	-needs rich loamy soil, well rotted manure

BEST COPY AVAILABLE

PLANT	PRETREAT SEEDS	Positioning depth	spacing	furrow raised bed	planting	plant	harvest	requirements
Corn		2cm.	8 to 8 per sq meter	on mounds .5 meters high -pH = 5.5-7.0	seed	Dry but needs irrigation wont mature during rainy season	annual -push on kernel milk should pop out	-if soil too loose plant lodges -daylight sensitive - may produce flowers too early - prefers full sun
Sugar Cane		2 to 8 in.	open 4-7 ft between rows	in furrows	2-3 ft. Cane cuttings	wet	8-24 months after planting -multiple harvests	apply fertilizer after innitial growth, next to plant
Cassava		insert 2/3 of cutting	1-1¼ meters between plants	well tilled area	stem cuttings 25 cm. long	rainy	perennial, can harvest as annual crop of tubers in 9-12 months	
Upland Rice	presoak seeds 24 hrs 40-48 draining	surface or slight covering if seeded before flood	8-10 plants per sq ft.	tilled land 4-6 in depth clods must be worked	seed broadcast before or after flooding	just before rainy season	annual	no bunding so more control of weeds needed
Irrigated Rice	"	surface	"	flood land plow + plant	21-50 day old seedlings -sometimes direct seeds	beginning of rainy	annual	-bunded fields -water depth 4-8 inches
Deep-Water Rice	"	surface	"	plow 4-6 in when field dry or after 1 rain	broadcast seed	beginning of rainy	annual	-have adventitious roots -photoperiod sensitive keeps them from maturing too early
Amaranth + Celosia		shallow + covered with fine sand water frequently	20 cm.	intensive gardening	direct or transplant 3-4 week old plants into loose, damp soil	withstands rain	spinach greens in 5 weeks Keep harvesting for 6 months	- becomes noxious weed - Prefer full sun

BEST COPY AVAILABLE

Growing Handbook - Judy

Plant	Pre-Treat seeds	Plant Positioning		Furrow or raised bed	Type of Planting	Season to Plant	When to Harvest	Additional Comments
		Depth	Spacing					
Tomatoes			1 meter between rows + plants	raised	seed or box w/ rich soil, transplant to pot after 12 days growth		50 days after planting	- fert. 2 or 3 weeks before planting - prune suckers + flowers if too many - stake plant
Yams		2-3 in.	12x16 in apart	raised mounds	seed or tuber or slips	~~[illegible]~~ before rainy season	5-8 months	~~Same~~ need stakes -starter fert. - large dose of nitrogen -Mulch since very hard to weed
Groundnut same as peanuts		1-2 in.	6 in. apart in rows 24 in. apart	raised needs good drainage	seed		3-6 months	- loose soil - needs calcium
Peanut		1-2 in	6 in. apart in rows 24 in. apart	raised bed	seed			need calcium -loose soil
Lettuce		1/4 in. deep	9 to 12 in. between plants	for tight head pack soil loosely up around plant	germinate in seedbed 10-12 seeds/ft then transplant when plants 6 in. high		when head is firm - gently press with back of hand to test this	-needs humus + water in large quantity -compost + manure to order of 10 lbs/sq yd
Onion		1/2 inch	4 inches between plant, 10 inches between rows	raised	Start with set (bulb) with bit of green shoot sticking out when you plant Seed (when available) on raised beds and thin out after germination	Dry	when seeds appear on onion pick	

BEST COPY AVAILABLE